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The Alberta Journal of Educational Research

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Beth Young

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A Note from the Editor: Plans for 1998

As we open the 1998 volume of *The Alberta Journal of Educational Research*, I am pleased to announce here some of our plans and changes for the coming year. As in past years, I continue to appreciate the willing and thoughtful assistance of many colleagues who contribute to **ajer** in ways that I note below.

Combined Summer/Fall Issue, 44(2&3): Literacy in the 21st Century

This fully refereed theme issue, co-edited by Grace Malicky and Mary Norton, will publish a selection of the papers that were presented at a recent conference about literacy and literacy education for all ages, which was sponsored by our Faculty of Education.

Call for Submissions

We are planning a theme issue (Summer, 1999) tentatively titled, "Teacher Educators: Identities, Roles, and Influences on Teacher Education Reform." The guest editor for this issue will be Ardra Cole, who is also one of **ajer's** consulting editors. Look for the call for submissions, which appears elsewhere in this issue.

Associate Editor

George Buck is now Associate Editor of **ajer**. I am delighted that George has agreed to take responsibility for issues related to computer technology (including our website) and copyright. George is a member of our Faculty who has served for many years as one of **ajer's** consulting editors.

Consulting Editors

I am happy to welcome four new consulting editors to our group and sorry to say goodbye to one. Tony Bartley of Lakehead University in Ontario, Canada, Bobbi Kerlin of Portland State University, Roberta Mura of Laval University, in Québec, and Jennifer Sumsion of Macquarie University in Sydney, Australia are the additions. They bring enthusiasm and expertise that will complement the energy and commitment of our excellent continuing consulting editors. Our one retiree is Judy Cameron, who is going on sabbatical this year. Special thanks to Judy for her sustained support of **ajer**, first as the editor and since then, as "special advisor" to me and as a reviewer. Fare thee well, Judy!

More Thank You's

I continue to have every reason to be grateful for the efforts of many colleagues, on behalf of **ajer**. Sixty individuals, who are listed following the Contents, completed manuscript reviews for **ajer** in 1997. Without question, the thoughtfulness of those reviews has contributed a good deal to the quality of our published articles. Many authors have expressed their appreciation for the constructive attention that reviewers have given their manuscripts. In addition, I benefit from the skilled assistance of the individuals who take responsibility for various aspects of the technical and administrative work associated with **ajer**. Their names appear on the masthead page, and their company makes my life with **ajer** a pleasure. We welcome your comments on any aspect of **ajer's** operations.

Beth Young
ajer@gpu.srv.ualberta.ca

Call for Submissions

Teacher Educators: Identities, Roles, and Influences on Teacher Education Reform

Alberta Journal of Educational Research

Theme Issue (Summer, 1999)

Guest Editor: Ardra L. Cole

Faculties of education across Canada, throughout North America, and beyond are, once again, in the throes of teacher education reform. The complexity of this process is exacerbated by the range and diversity of individuals and institutions directly and indirectly involved in teacher education and by the ill-defined nature of the field of teacher education in general. Faculties of education employ full-time faculty as teacher educators; second educators from school boards as adjunct or clinical professors; hire people on contractually limited appointments to serve in a variety of roles; and utilize the services of school-based educators who serve as associate or cooperating teachers for preservice teacher candidates.

- What are the implications of this broad-based involvement for teacher education programs and their reform and for teacher education as a field?
- What are the influences of the multiple and diverse roles, identities, and commitments of those involved in teacher education on teacher education programs and their reform?

The questions noted above will be the focus of the theme issue. Articles will cohere around broad themes related to improving teacher education and addressing the challenges associated with the multiple and diverse identities of teacher educators.

Authors planning to submit a manuscript are encouraged to submit a brief intention statement or abstract (250 words) well in advance of the deadline in order to receive feedback about the appropriateness of the submission for the theme issue. Abstracts, intention statements, or preliminary inquiries should be sent to Ardra Cole by electronic mail at ardracole@oise.utoronto.ca or by facsimile at (416) 926-4749. Deadline for preliminary submissions is June 30, 1998. The usual AJER manuscript guidelines for authors apply. Please refer to guidelines as described in our current volume and submit manuscripts by October 1, 1998 to:

Ardra L. Cole

Dept. of Adult Education and Counselling Psychology

OISE/UT

252 Bloor Street West

Toronto ON M5S 1V6

Doug Hart

and

D.W. Livingstone

Ontario Institute for Studies in Education, University of Toronto

The "Crisis" of Confidence in Schools and the Neoconservative Agenda: Diverging Opinions of Corporate Executives and the General Public¹

We reexamine published national survey results since 1980, and reanalyze results of the Ontario OISE/UT survey for the same period, to answer two basic questions. First, is there a crisis in public support for school systems? Second, is there support for an agenda of fiscal austerity and privatization that is the neoconservative prescription for education? We do not find an impending crisis of public or parental confidence in schools. Confidence and satisfaction ratings express a wave-like pattern over time rather than a secular downward trend. Among corporate executives, however, lack of confidence in schools may have reached crisis proportions. There is, moreover, a consensus among executives on neoconservative policies for fiscal austerity and use of market mechanisms in the school system. This neoconservative agenda finds limited support in the policy preferences of the general public.

Dans cet article, nous réexaminons les résultats des sondages nationaux publiés depuis 1980, et nous analysons de nouveau les résultats du sondage de l'OISE/UT, en Ontario, pour cette même période afin de répondre deux questions de base. La première, existe-t-il une crise de soutien public pour les systèmes scolaires? La deuxième, y a-t-il de l'appui public pour un programme d'austérité fiscale et de privatisation en éducation qui est l'expression de l'ordre du jour néoconservateur? Nous ne décelons aucune crise vis-à-vis la confiance du public ou des parents envers les écoles. Sur un graphique, des cotes de confiance et de satisfaction auraient tendance à être exprimées en courbes d'ondes à période régulière plutôt qu'une simple rectiligne descendante. Il se peut que pour les cadres supérieurs des grandes sociétés, cependant, le manque de confiance envers les écoles ait déjà atteint le niveau de crise. En plus, il existe un consensus d'opinions parmi ceux et celles qui sont responsables de promouvoir des politiques néoconservatrices d'austérité fiscale et d'utilisation de critères du monde des affaires pour déterminer l'efficacité de l'éducation. Cependant, pour le public qui préfère certaines politiques en éducation que d'autres, on retrouve peu d'appuis pour cet ordre du jour néoconservatrice.

Introduction

We address two basic questions: first, is there a crisis in public support for school systems? Second, is there support for an agenda of fiscal austerity and privatization that is the neoconservative prescription for education (as for

Doug Hart is a senior research officer and institutional researcher at the Ontario Institute for Studies in Education at the University of Toronto. He has been associated with the OISE/UT Survey of Educational Issues since 1978.

D.W. Livingstone is a professor and Chair of the Department of Sociology and Equity Studies in Education at the Ontario Institute for Studies in Education at the University of Toronto, Director of the national research network on New Approaches to Lifelong Learning (NALL), and principal investigator of the biennial OISE/UT Survey of Educational Issues.

other areas of government activity)? In Ontario the newly appointed Minister of Education in the Harris Conservative government achieved notoriety when a leaked tape revealed him explaining to senior civil servants how an artificially created "crisis" atmosphere was needed to win public acceptance for the Minister's agenda for education. (The Minister, John Snobelen, was "captured" on videotape "saying he would invent a crisis to whip up support for overhauling the system," Brennan, 1995, p. A3). The Minister's views had a sharpness of focus missing from much of the debate about public views on education. His argument essentially linked the creation of a political opening for radical restructuring of the educational system to a purported sudden erosion of popular support for the current educational leadership and current institutional arrangements.

Yet for long-time observers of educational opinion the Minister's quest for a "crisis" must appear somewhat ironic. There has been abundant evidence over a much longer period in both Ontario surveys and other Canadian polls of apparently chronic, widespread popular discontent with the school system. In the 1980s evidence emerged of a sustained decline in public assessments of the school system. To some observers these trends in popular views of education foreshadowed a passage from discontent with schools to a crippling loss of public confidence. The current leadership and institutional arrangements would lose their legitimacy in the eyes of the public; the way would be opened for restructuring and reduced funding. Throughout the 1980s and early 1990s critics of the schools were able to cite poll results showing widespread dissatisfaction with schools, perceptions of declining quality, and apparently low levels of public confidence.

We have, then, two versions of how an emergent crisis in public confidence in schools would be signaled and documented in the polls. The first is a sudden collapse in popular support for schools such as the Minister of Education in Ontario hoped to engineer. The second is a consistent, cumulative decline in confidence that at some point crosses a threshold opening up new political possibilities for the neoconservative agenda. By neoconservative we mean a New Right political position, also confusingly characterized as neoliberal (King, 1987), which argues for: (a) a reduction in the role of the state, particularly with regard to social services, redistribution of income, and equity initiatives; (b) a reduction in government deficits and debt; and (c) a reliance on market mechanisms and competition to make public services more efficient through privatization or by bringing greater competition into the public sphere.

Neoconservative policies have been most strongly and coherently advanced by neoconservative governments, notably the Klein government in Alberta and the Harris government in Ontario. Nevertheless, governments of every political stripe have felt the need to reduce deficits; under slogans such as "reinventing government" there has also been a debate about decentralization and competition that extends beyond the right, regarding, for example, charter schools. However, neoconservatives are distinct in seeking to restrict the social responsibilities of the state in principle, and in favoring deficit reduction over maintaining programs as a moral good (linked to maximizing individual liberty) not simply a practical necessity.

As recent commentators have emphasized (Guppy & Davies, 1997; Loveless, 1997), we have no objective benchmark to indicate when a decline in confidence is sufficient to create a crisis of legitimacy. The decisive evidence, we would argue, must lie in growing public acceptance of alternative policies advanced by critics of the schools. Here we examine the empirical evidence for the appearance of either or both of the above patterns of change in public support for current educational institutions, and for public acceptance of key elements of the neoconservative agenda, reduced funding, and reliance on market mechanisms.

In what follows, however, the strategy of the Minister of Education and Training for Ontario should not be forgotten. Changes in confidence ratings may be neither a necessary nor sufficient condition for policy change. As Ladd, Potter, Basilick, Daniels, and Suszkin (1979) noted, following the passage of Proposition 13 in California:

While the data generally sustain the view that dissatisfaction with taxes reached a high point in 1978, they do not suggest that some dramatic shift in opinion has occurred recently.... Survey data can never be sufficient to explain a political phenomena like the tax protest that "took off" when California voters passed Proposition 13. How leadership groups perceive the political situation and what positions they offer for public consumption are critical factors in situations of this kind. More than a few political leaders are now *acting* as though public resistance to taxation has stiffened, markedly, and this leadership response is in itself enormously consequential for the "tax revolt"—quite apart from what mass public opinions actually are. (p. 128)

Our Ontario-centered analysis focused on perceptions of the schools and support for change among the general public, parents of schoolchildren, and one of the most influential leadership groups, corporate executives.

The Data Record

A United States researcher, Loveless (1997), recently noted

Despite the endless rhetorical wars waged by critics and defenders of public schools, wars presumably fought for the heart and soul of the American public, research on public attitudes toward education is confined to a handful of texts and articles. (p. 128)

The Canadian situation is similar. Such survey data as are publicly available (i.e., excluding the growing number of private, subscriber-restricted, and unannounced government polls) typically make only a brief appearance in the media as isolated news reports or as part of an advocacy campaign. Few agencies have accumulated trend data on issues of public confidence and support for schools. Guppy and Davies' (1997) recent reanalysis of trends in public confidence in schools, based on data from the Canadian Institute for Public Opinion (Gallup, 1996) and Decima data archives, is a notable exception. Few studies based on reanalysis of multi-year data have been attempted. In this article we first draw on published findings of national polls to reexamine claims of a downward trend in public confidence in the schools. We then examine trends in the views of the Ontario public through secondary analyses of multi-year data from the biennial OISE/UT Survey of Educational Issues conducted in Ontario since 1978. The OISE/UT survey incorporates both a

general population sample and a special sample of directors and executives of private corporations in Ontario.

What the record shows, we argue, is that among the general public there is neither a sudden collapse nor a secular decline in support for schools. This applies even to groups who have generally been less supportive of schools: notably those in the older age categories and those with lower levels of formal schooling. In contrast, opinion trends among corporate executives provide evidence of a true crisis of confidence in the school system and parallel acceptance of the neoconservative agenda. Levels of discontent increased in the late 1970s and at points in the 1980s. Public confidence declined sharply at the end of the 1980s. However, these trends reversed in the 1990s among the general public. By the mid-1990s, corporate executives have become relatively isolated both in their extreme dissatisfaction with schools and their unwillingness to support spending on education. Although a substantial proportion of the public remains dissatisfied with the schools in the mid-1990s, public support for increased spending on schools has barely been eroded over the last decade of jobless recovery, stagnant personal incomes, and neoconservative rhetoric against government spending. On issues of privatization, corporate executives are of one mind; the public, however, remains divided. Thus a coherent and consistent shift to neoconservative views is largely restricted to executives; the general public is unconvinced that education is in crisis, rejects fiscal austerity as a "solution," and remains divided on the appropriateness of market mechanisms for schools.

Confidence in Canadian Schools: Cycles or Secular Decline

All told, various questions, whether about schools or education, and about satisfaction or confidence, show quite similar patterns; support for public education among Canadians has declined over the past three decades. Our analysis of new data suggests that public confidence in Canadian education has either continued to dip or has not rebounded to levels of previous decades. (Guppy & Davies, 1997, p. 7)

The polling trends examined in this paper may trace part of a natural cycle of public favor and disfavor.... If so, education's crisis in public confidence may be largely illusory, the figment of academics' musings and media hyperbole. (Loveless, 1997, p. 139)

In this section we examine the survey record of general public assessments of the school system—confidence, satisfaction, perceptions of changing quality—against the two patterns of purported "crisis" outlined above. We look first at the period up to 1993, which has provided seeming evidence both of a secular decline in public assessments of schooling and, at the end of the period, signs of an imminent collapse in confidence in the public schools. We then examine trends in opinion since 1993. This period has witnessed a striking recovery of confidence levels in the schools. Other indicators have either been stable or showed some improvement in public evaluations of schooling. Evidence that public assessment of schools has not followed a simple linear, downward trend raises issues of what pattern does characterize the evolution of public views over the past two decades or more. In the final part of this section we take a second look at opinion trends since the 1970s.

The Public Opinion Record to 1993: A Gathering Storm?

On February 1, 1993 a Gallup Report was released under the headline "Canadians are losing respect for their institutions" (Bozinoff & Turcotte, 1993). Between 1989 and 1993 confidence ratings in all institutions named in the Gallup question had declined. The drop in support was sharpest for the public schools. In 1989 62% indicated that they had a great deal or quite a lot of confidence in schools compared with 44% in 1993. That confidence ratings in the schools had declined was not unexpected given the magnitude of public criticism of the schools and trend lines on other measures of educational opinion (Guppy & Davies, 1997; Livingstone, Hart, & Davie, 1995). The extent of the decline, if sustained, however, suggested that the legitimacy of current schooling was at serious risk (Guppy & Davies, 1997).

In the record of public opinion up to 1993 the sharp decline in confidence ratings is the most compelling evidence for an imminent approaching crisis of legitimacy in education. Of the trends in general public assessments of the school system (which include satisfaction, ratings of performance, and perceptions of quality) examined both by Livingstone et al. (1995) and by Guppy and Davies (1997), confidence ratings alone show a recent sharp decline. In the case of most other measures, the main period of decline dates back to the early 1980s or even the late 1970s. Levels of satisfaction with schools have been stable nationally since 1978 (Guppy & Davies, 1997; Edwards & Hughes, 1996). Perceptions of quality of current versus own schooling had reached a low point in 1983 and may actually have become slightly more favorable since that year (Guppy & Davies, 1997). The earlier general review by Livingstone et al. (1995) drew attention to the discrepancy in trend lines but did not offer any interpretation. By 1993 there was in fact evidence that declining confidence ratings of the public schools were part of a much broader erosion of public confidence in institutions in general.

The sharp drop in confidence ratings for the public schools between 1989 and 1993 was paralleled by lesser declines in confidence in most other institutions including the churches, the Supreme Court, and House of Commons, as well as private sector organizations including newspapers, large corporations and labor unions (see Figure 1). A similar, generalized erosion of confidence in institutions was being recorded in the US and the United Kingdom over the same period (Livingstone et al., 1995). Thus the decline in confidence in Canadian schools appeared as part of a much broader international social trend.

Livingstone et al. (1995) point out that even in 1993 the public schools were among the most respected institutions, second only to the Supreme Court, and that confidence levels in Canadian schools declined later and remained in the early 1990s somewhat above ratings in both the US and the UK. Similarly, the Canadian Gallup Report for 1994 on confidence in institutions (Gallup Canada, 1994) carried a boldface heading "Public schools most respected" (although noting that confidence remained well below earlier levels). Thus while confidence ratings of schools were in decline, educational institutions continued to enjoy comparatively high levels of confidence compared with other institutions. This amply demonstrates the tactical usefulness of poll data to both critics and supporters of the public schools. Guppy and Davies (1997) also note the comparatively high ratings for schools. They argue, however, that the

decline in confidence ratings for schools over time is more meaningful than the continued relatively high ratings of schools compared with other institutions. If the significance of confidence ratings lies in signaling a potential collapse in the accepted legitimacy of institutions, then it makes sense to give greater weight to changes in ratings rather than relative levels of confidence.

Finally, there was scattered evidence that declining public confidence was accompanied by public perceptions that the quality of education was eroding. An Angus Reid poll documented a sharp increase (35% to 46%) from 1986 to 1993 in the proportion of Canadians who thought that the quality of the public schools had worsened in the past 25 years (Angus Reid/Southam News, 1993). In Ontario the OISE/UT Survey found that the proportion of the public who saw a deterioration in high school education compared with 10 years ago had grown from 30% to 46% between 1990 and 1992 (Livingstone et al., 1995). National Gallup Polls, however, failed to record either any increase in public dissatisfaction with schools or increasing perceptions of declining quality when compared with the education that respondents' themselves received (Gallup Canada, 1994). Moreover, the OISE/UT Survey, after documenting a decline in satisfaction with Ontario schools from 1982 to 1988, indicated signs of recovery in 1990 (Livingstone, Hart, & Davie, 1991).

The Watershed: 1993 and After

As it turned out, 1993 was a watershed year in Canada. Public confidence in the schools first stabilized and then improved in the next four years (Edwards & Hughes, 1997). By 1997 confidence levels had reached those seen in the mid-1980s (55% in 1997, compared with 54% in 1979 and 56% in 1984). Although there can be little question that public confidence in the schools declined sharply between 1989 and 1993, the depth of the trough in 1993 in part reflects the exceptional peak in confidence ratings in 1989. Confidence in other institutions, including the churches, the Supreme Court, newspapers, large corpora-

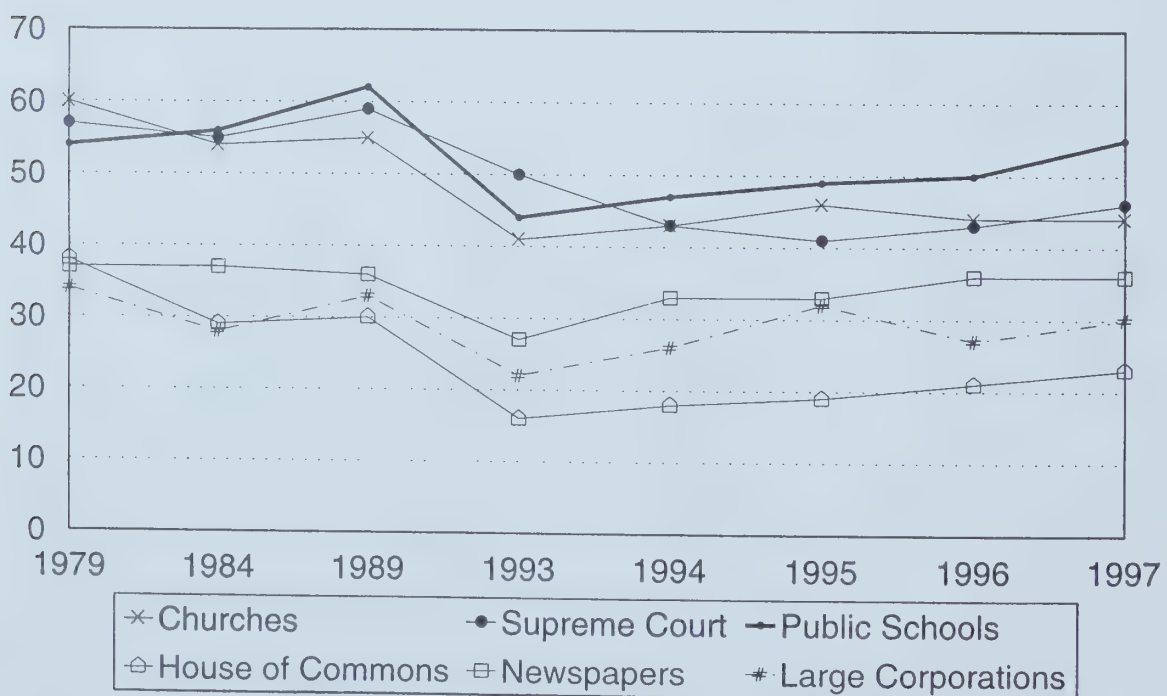


Figure 1. Confidence in Canadian Institutions (%great deal/quite a lot), Gallup Poll, May 14, 1997.

tions and labor unions also stabilized and showed weaker signs of improvement (see Figure 1). In the US confidence in institutions, including the public schools, also stabilized (Gallup, 1996; McAneny, 1996).

Canadian Gallup polls recorded a modest increase (35% to 40%) from 1992 to 1996 in the proportion of the public satisfied with the education children were currently receiving (Edwards & Hughes, 1996a). In Ontario the OISE/UT Surveys confirmed the recovery of satisfaction with schools to levels found at the beginning of the 1980s (Livingstone, Hart, & Davie, 1997). This represented a substantial increase between 1988 and 1996 in the proportion of the public indicating they were satisfied with the school system in general (36-50%). Perceptions of the quality of high school education also recovered. As the 1990s draw to a close, it can still be claimed that substantial proportions of the public have only modest levels of confidence in the schools, that many are dissatisfied and see a continuing decline in the quality of education. What cannot be said on the evidence is that the trends in confidence, satisfaction, and perceptions of changing quality are downward.

Taking the Longer View

Loveless (1997) in reviewing trends in confidence ratings in US institutions finds

three distinct waves of public confidence in the public school system: eroding confidence levels in the 1970s and early 1980s; an upward move in the mid-1980s; and a resumption of decline from 1987 into the 1990s.... Schools were not alone in losing public trust during the 1970s, 1980s and 1990s. We can see ... that other institutions exhibit a three-wave pattern similar to schools. (pp. 132-135)

The phrase "resumption of decline" with reference to the pattern since 1987 is somewhat misleading. A graph of confidence ratings for the public schools between the early 1980s and mid-1990s more closely approximates the "pig in the python" shape than that of a figure imported from a game of *Snakes and Ladders*. The proportions of the American public with a great deal or quite a lot of confidence in schools are similar in the early 1980s and the mid-1990s. Moreover, opinion appears to have stabilized, at least temporarily, at this level (Gallup, 1996; McAneny, 1996).

In Canada we see a somewhat different pattern of waves. Relatively high (and rising) confidence levels in the 1980s end in a sharp downturn at the end of the decade. From this low point, confidence ratings improve through the 1990s. The proportion of Canadians with a great deal or quite a lot of confidence in public schools is virtually identical in 1997 and 1984.

To sketch out these patterns is in no way to explain them. Guppy and Davies (1997) offer a number of possible explanations for a decline in confidence ratings: demographic change, generalized erosion of confidence in societal institutions, growth of a culture of cynicism, displacement of frustrations with the economy to schools, and public awareness of actual poor performance by schools. They explicitly test only the demographic hypothesis and find shifts in the population have relatively little explanatory value.

Regarding the relationship between economic performance and confidence ratings, it is worth noting that the period of sharp decline in confidence ratings from 1989 to 1993 coincides with a severe economic downturn. The annual

unemployment rate in 1989 was 7.5%; by 1993 it stood at 11.2% (Statistics Canada, 1995). However, there was no corresponding decline in confidence ratings during the previous downturn from 1982-1984.

Loveless (1997), framing the problem in terms of explaining cycles or waves in US confidence ratings, looks for parallel phenomena, noting "the remarkably similar pattern for Scholastic Aptitude Test (SAT) results until 1991, mirroring the three waves of public confidence in education." However, "from 1991 to 1995, SAT scores improved while sentiments continued to sour" (p. 132). Loveless also looks at discontent with government and other social institutions and depictions of education in the media. He brings a further dimension to the problem in drawing attention to the discrepancies between patterns of confidence ratings and patterns of actual behavior. In particular, he notes that since the early 1980s private school enrollments in the US have declined significantly as these schools have lost ground to public systems (Loveless, 1997). Guppy and Davies (1997) counter that declining private school enrollment in the US had mainly been due to erosion of Catholic school systems. They note that in Canada both private school enrollment and political pressure for school choice have grown in recent years (Guppy & Davies, 1997, footnotes 6 and 8).

It is evident that efforts to explain shifts in public confidence are at an early stage. It is not even clear, for example, that national trends ought to be the initial focus of attention. It may well be that public attitudes toward schooling are formed on the basis of more local referents, in particular, their provincial or state educational systems. Attempts to relate public support for schools to government policies and their consequences in federal systems like Canada and the US should focus initially at the provincial or state level. In the next section we examine trends in general public assessments of the school system in relation to developments in public policy preferences in key areas, notably spending and restructuring, in one province, Ontario. Our purpose here is not to provide explanations, but as in the previous section to delineate more clearly what are in fact the attitudinal patterns that need to be explained, as well as to examine the extent to which these views are shared by different social groups.

Confidence and Public Policy Preferences: Patterns in Ontario

In this section we examine the relationship between trends in general assessments of schools and the evolution of policy preferences. In addition to the general public as a whole, we profile the attitudes of two groups whose spokespersons have been prominent in the public and media debates over education: parents with children in the schools and corporate executives. With the exception of confidence ratings, all survey results presented in this section are drawn from the OISE/UT biennial survey of educational issues, either the general population survey or the supplementary survey of corporate executives conducted in each administration.²

Confidence, Satisfaction, and Perceptions of Changing Quality

All regions of Canada experienced broadly similar changes in confidence ratings from 1989 to 1997. In each case we see similar patterns of decline and subsequent recovery (see Table 1). What varies, however, is the depth of the trough and the height of the succeeding recovery. Quebec is notable for the shallowness of the dip, particularly in contrast to neighboring Ontario. The Ontario pattern shows a decline a little greater than the national average and a

Table 1
Confidence in Public Schools by Region, Selected Years

<i>Region</i>	<i>1984</i>	<i>1989</i>	<i>1993</i>	<i>1997</i>
	<i>% “a great deal” or “quite a lot”</i>			
Atlantic Canada	68	64	48	59
Quebec	43	59	54	62
Ontario	61	64	40	52
Prairies	61	67	42	57
British Columbia	49	57	32	41
Canada	56	62	44	55

Source: Tabulations provided by Gallup Canada.

recovery that is somewhat less complete. Confidence ratings in Ontario do not regain their 1989 peak and as yet remain below levels in 1984.

The OISE/UT survey has tracked levels of satisfaction with the school system in general since 1980. Satisfaction levels are comparatively high in the early 1980s, but decline sharply in the later half of the decade before recovering in the early 1990s (see Table 2). Changes in satisfaction levels appear to lead trends in confidence; satisfaction levels both decline ahead of confidence ratings and recover earlier. Views of parents parallel those of the general public; however, at all stages parents remain somewhat more satisfied than the public as a whole.

Perceptions of changes in the quality of high school education compared with 10 years ago follow a different, simpler pattern (see Table 3). The proportion of the Ontario public who thought that the schools had deteriorated over the past 10 years actually declined somewhat in the early 1980s. There has been little change in perceptions since that time. Views of parents are similar to those of the public as a whole.

The record of general public opinion and of parental opinion in Ontario over the past decade and a half does not reveal a consistent secular trend toward loss of confidence in the public schools. There are patterns of decline and recovery in confidence ratings similar to those we have seen nationally. The relatively sharp declines in confidence and satisfaction in the mid to late 1980s were short-lived. It is important to note that both confidence ratings and levels of satisfaction remain below their peaks in the 1980s. It is not clear, however, whether the current wave of improvement has itself peaked (much less about to reverse itself). In other words, there is little evidence of a sustained threat to the legitimacy of the public school among the public as a whole or parents in particular.

Corporate executive spokespersons have been particularly strong critics of the schools; trends in corporate executive opinion do suggest an undermining of their support for schools. No confidence ratings are available for corporate executives. However, satisfaction ratings reveal a sharp divergence of views of executives from those of parents and the general public. In all years executives were less satisfied than the public as a whole. After 1988, however, differences

Table 2
“How satisfied are you with the current situation in Ontario elementary and high schools with regard to the school system in general?” % Satisfied

Year	Total Sample ¹ %	Parents %	Corporate Executives ² %
1980	50	61	37
1982	56	67	37
1986	43	53	29
1988	37	46	18
1990	49	57	20
1996	50	58	22
Sample sizes	1,000-1,106	308-507	110-138

¹Excludes special sample of corporate executives.

²Based on a special mail survey.

widened considerably; satisfaction levels recover among the general public and parents (Table 2) but not among executives. By 1996 half of the public, over half of parents, but only one in five corporate executives indicated that they were satisfied with the school system in general. In the case of perceptions of changing quality, executive opinion has been largely stable throughout the 1980s and early 1990s. However, over the period, executives were consistently more likely than the public or parents to think the quality of high school education was deteriorating (see Table 2).

The wide gulf between the views of corporate executives and the general public becomes even more evident when we compare this with differences among groups *within* the general public. There are divisions of opinion among

Table 3
“Overall would you say that the quality of education received by students in Ontario high schools has improved, remained the same or deteriorated?”
% indicating Deteriorated

Year	Total Sample %	Parents %	Corporate Executives %
1976 ¹	46	NA	NA
1979	42	38	NA
1984	36	36	50
1988	39	39	48
1990	37	32	54
1994	35	35	54
Sample sizes	1,011-1,070	353-419	110-122

NA = not available.

¹Source: Ontario Ministry of Colleges and Universities/Ministry of Education (1976).

social groups within the general population on issues that distinguish the public as a whole from corporate executives. The most consistent differences are by age. (Livingstone et al., 1997). In general, if parallels to the views of corporate executives are to be found within the general public, we must look to polar groups most alienated from the educational system. The most numerically significant of these polar groups comprises those over age 65. It is in fact only among this age group that we find levels of dissatisfaction comparable to that of corporate executives. (A majority of corporate executives in our samples are 35-54.) In 1996, among the general public, only a quarter of those over 65 were satisfied with the school system. The figure was 40% for those 55-64, over half of those in all younger age groups.

Policy Preferences

We argue above that the political importance of declining confidence ratings in institutions should be measured in terms of corresponding growth in new policy preferences. In the current political context the issue is whether erosion in confidence in the public schools is associated with increasing support for the neoconservative policy agenda: spending cuts, deficit reduction, and privatization. Given the patterns in confidence ratings outlined above, two more specific questions can be asked. First, are there fluctuations in support for neoconservative policies in education that are linked to the decline and then recovery of public confidence ratings and satisfaction with schools? Second, are policy preferences of corporate executives distinct from those of the general public, reflecting differences in general assessments of the school system?

Money Matters

The hallmark of neoconservative policy is deficit reduction through sharp cuts in public spending. That spending can be reduced without impacting on services is much claimed and little believed. The OISE/UT survey has tracked spending preferences for education since 1980. Public support for increased spending on education in Ontario grew substantially in the 1980s (see Table 4) peaking in 1988 when 60% supported increased government funding for elementary and secondary schools. Support for higher funding levels increased at the same time as satisfaction with schools was in decline. After 1988 there is a dropoff in support for higher funding; however, about half continue to support increased spending from 1990 to 1996, well above the level found in the early 1980s. Through the 1980s and 1990s most of those who did not favor a real increase in spending wanted funding levels to "keep up with inflation." Fewer than 15% in any year have wanted to see an actual decrease in spending for elementary and high schools.

The post-1988 decline in support for increased spending on elementary and high schools coincided with the sharp drop in confidence ratings; however, although confidence ratings have since improved, support for increased spending has been largely stable. Views of parents follow a similar pattern to the above; however, in most years higher proportions of parents than the public as a whole support increased spending for public schools. Finally, it should be noted that national Gallup poll results show high, stable support for increased spending on elementary and high schools throughout the 1986-1996 period (Edwards & Hughes, 1996a).³

Table 4
“What would you like to see happen to government spending for elementary and secondary schools in the next budget year?” % indicating Increase

Year	Total Sample %	Parents %	Corporate Executives %
1980	38	40	15
1982	37	35	15
1984	44	51	18
1986	49	60	15
1988	60	68	43
1990	49	62	34
1992	55	55	25
1994	54	63	17
1996	49	56	19
Sample sizes	1,000-1,106	308-507	95-138

There are sharp differences between views of corporate executives and the general public over funding. The record of executive support for increased spending on elementary and high schools resembles the “pig in the python” (see Table 4). Before 1988 a small stable minority (15-18%) of executives supported higher spending. In contrast, support for increased school funding was growing among the general public and parents throughout this period. In 1988, the minority of executives favoring more spending on schools temporarily became much larger (43%).⁴ This apparent convergence between public and executives’ views was short-lived. Public support for increased spending on schools experienced only modest declines in the early 1990s. Among corporate executives, however, support ebbed quickly, returning by 1994 to levels found at the beginning of the 1980s. In 1996 almost half (48%) of corporate executives favored a decrease in spending on elementary and secondary schools, a higher proportion than found in the early 1980s.

The resistance of corporate executives to educational spending outstrips differences among major social groups within the general public. Historically, the sharpest divisions within the public over educational spending have been associated with age and with educational attainment (Hart & Livingstone, 1993). In 1996 those 18-24 were more than twice as likely to support increased spending on elementary and high schools as those 65 and older. However, even among the older age group a third favored real increased spending and a further 38% wanted spending to be maintained. Differences in spending preferences by educational attainment are not substantial in 1996.

Questions on spending preferences can be seen as providing a “soft” option for increased government funding as respondents are under no constraint to decide where the money should come from. The same charge cannot be made about questions dealing with taxation. The “tax revolt” and other signs of popular resistance to government spending have in the US represented the most potent sign of declining public confidence. In the 1960s and 1970s the increasing failure of school bond issues was a major concern (Smith, 1982).

Table 5
"Would you be willing to pay more taxes in support of education in Ontario?"
% indicating Yes

Year	Total Sample %	Parents %	Corporate Executives %
1988	45	51	42
1990	49	54	25
1994	50	54	14
1996	51	54	22
Sample sizes	1,000-1,070	308-403	95-122

More recently the idea of referendums limiting taxing powers of government (as in the case of Proposition 13) has been suggested as a general strategy by some neoconservatives. But over the period of declining confidence in schools at the end of the 1980s, the willingness of the general public in Ontario to pay higher taxes in support of education actually increased marginally (see Table 5).

Views of the general public and corporate executives on taxation have diverged since the late 1980s. In 1988 similar proportions of the public and corporate executives indicated a willingness to pay higher taxes in support of education. Among the general public willingness to pay higher taxes increased somewhat between 1988 and 1996. In 1988, the high point of support for increased spending, 45% of the general public indicated that they were willing to pay higher taxes in support of education. Although support for increased spending has decreased somewhat, willingness to pay higher educational taxes has become somewhat more widespread. In 1996 just over half were prepared to accept higher taxes. Over the same period willingness among corporate executives has dropped sharply. Among executives support for increased spending on schools and willingness to pay higher taxes in support of schools have fallen in tandem. The result of these trends is that in 1996 about half the public supported increased spending on schools and about half were willing to pay higher educational taxes; among corporate executives only about one in five supported higher spending or higher taxes. Among corporate executives there is strong evidence of a growing "tax revolt"; this is not the case for the general public. Even among those 65 and older, the age group least supportive of increased spending, a third were willing in 1996 to pay higher taxes for education.

Finally, the economic climate appears to have relatively little impact on attitudes toward spending on education. Between 1988 and 1992 the annual unemployment rate in Ontario rose from 5.0% to 10.9%; it was 9.6% in 1994 and 9.1% in 1996 (Statistics Canada, 1995). Thus, among the general public, support for increased spending on education underwent only modest retrenchment, and willingness to pay higher taxes in support of education actually increased during a severe economic downturn. The increase between 1988 and 1990 in support for increased spending actually predates the worst of the recession. In September 1990, unemployment stood at "only" 6.1%. During the 1982-1984

downturn when unemployment rates reached double digits, public support for increased educational spending had also increased somewhat.

In the case of corporate executives, declining support for higher spending and growing unwillingness to pay higher education taxes coincide with a worsening economic climate over the 1988-1994 period. Corporate views on spending were, however, largely unaffected in the 1982-1984 downturn. This suggests that something more than the recession was needed to produce a sea change in corporate views. The promulgation of neoconservative orientation by corporate spokespersons may have been an important catalyst of attitude change among executives after 1988. The emphasis on reducing the burden of government, eliminating waste in school systems, and promoting greater use of market mechanisms has become prominent in corporate-led public policy initiatives during this period (e.g., Steering Group on Prosperity, 1992).

In view of these patterns, it is not surprising to find that the fiscal priorities of the general public and corporate executives in 1996 are far apart (see Table 6). Among corporate executives there is a strong consensus that the most important task for the current Ontario government is to reduce the deficit. Almost three quarters hold this view. In contrast, only about a quarter of the general public give priority to fighting the deficit. Over half think that the more important task is maintaining health and education services.

The above is not an isolated finding. A national Gallup poll in November 1996 (Edwards & Hughes, 1996b), for example, found that almost half indicated that they were concerned with the size of the federal deficit. However, over 80% opposed reduced spending on health or reduced spending on education (these were separate items) as ways of cutting the deficit. Almost three quarters (73%) favored increasing corporate taxes. This was a higher proportion than supported that perennial favorite, reducing spending on welfare (53%).⁵

Market-Based Initiatives

On other issues associated with the neoconservative agenda, we find the opinions of corporate executives are solidly aligned with the views expressed by their spokespersons. The general public, in contrast, is divided on the issues. Cases in point are privatizing noneducational school services (contracting out) and providing junior kindergarten on a fee-paying basis.

Table 6
"Which of the following do you think should be the most important task for the Ontario government?" (1996)

	<i>Cutting taxes</i>	<i>Reducing the deficit</i>	<i>Maintaining education and health services</i>	<i>Other/ Not stated¹</i>	<i>N</i>
	%	%	%	%	
Total Sample	8	27	56	10	1,000
Parents	7	26	59	8	308
Corporate Executives	7	74	11	9	114

¹Includes multiple responses.

Table 7
Support for Market-based Initiatives (1996)

	<i>Contracting out nonprofessional services¹</i>	<i>Parents should be charged fees for junior kindergarten²</i>	<i>Sample size</i>
	<i>1% agree</i>	<i>% agree</i>	
Total Sample	51	44	1,000
Parents	47	41	308
Corporate Executives	86	62	114

¹“School boards in your community should contract with private businesses to provide transportation, janitors and food services for schools rather than having these services provided by school board employees.”

²“Parents should be charged fees for sending their children to junior kindergarten, the same as they are for child care.”

Contracting out of nonprofessional support services such as transportation, food, and janitorial services has become an increasingly common proposal as Ontario boards seek to cut expenditures. This trend is consistent both with the neoconservative position that the private sector is inherently more efficient and with current management theory that organizations should stick to their “core business.” It also represents a major challenge to public sector unions. Contracting out of nonprofessional services has been resisted in the name of preserving “good jobs” and the rights of unionized workers. More broadly, opponents have characterized contracting out as the thin edge of the wedge in terms of a growing business influence on how public schools are run.

In 1996 the OISE/UT survey found that contracting out of nonprofessional services is supported by just over half of the general public. This figure is unlikely to reassure those whose jobs are at stake. Yet it is considerably lower than levels found in the US (Elam & Rose, 1996) and lower than would be expected if the province were in fact in the midst of a tax revolt. Among corporate executives with their strong consensus on resisting higher taxes for education, there is strong support for contracting out. Almost 90% are in agreement with this policy.

The application of market mechanisms to the provision of professional educational services constitutes a much more diverse and controversial set of issues. Public funding for private schools and for quasi-private charter schools are two widely discussed options. In many jurisdictions both of these options would require amendments to legislation and occasion a sharp rise in the temperature of debates over educational policy. A lower-profile approach is to accentuate the division between mandatory and nonmandatory educational programs within publicly supported schools, allowing or encouraging the application of user fees for nonmandatory offerings. In Ontario the incoming Progressive Conservative government in 1995 rejected the recommendation of the Royal Commission on Learning for publicly funded early childhood education, confirming that junior kindergarten would remain a nonmandatory program (the previous government had established a timetable for a mandatory,

universal program) with reduced government financial support. Thus junior kindergarten in Ontario became a potential candidate for user fees.

The 1996 OISE/UT survey asked if parents should be charged fees to send their children to junior kindergarten as is done in the case of day care. Just over 40% of the general public and of parents agree with user fees for junior kindergarten. In contrast, a substantial majority of executives would support charging fees. Differences in views of the public and executives on fees appear in large part to reflect differences in commitment to universal accessibility to school board programs for 3- and 4-year-olds in principle. Overall, among both the general public and corporate executives, those who favor the principle of universal access to such programs are less likely to support user fees for junior kindergarten than those who do not favor access. The higher support for user fees among corporate executives largely reflects the fact that executives are much more likely than the general public to oppose universal access to school programs for children from age three to four (62% vs. 34%).

Conclusions

We find little evidence for either of the two patterns that might signal an impending crisis of confidence in schools. Confidence and satisfaction ratings express a wave-like pattern over time rather than a secular downward trend. The single episode where ratings dropped precipitously (1989-1993) was followed by a recovery of confidence that continues to the present. Changes in the attitudes of parents are similar to those of the general public in this regard.

In the case of corporate executives the situation is different. Trends in satisfaction ratings among executives moved relentlessly downward through the late 1980s and remained low in the 1990s. Among executives perceptions of deterioration are widespread and stable. There are thus grounds to consider that lack of confidence in schools may have reached crisis proportions among this politically influential group in contrast to the general public. This view is supported by the consensus of executives on neoconservative policies for fiscal austerity and use of market mechanisms in the school system. Corporate executives are distinguished by the single-minded priority that they give to deficit reduction. Views on education, and in particular educational spending, appear to be largely dictated by their budgetary priorities. Their support of increased spending on schools has fallen precipitously since 1988. Their resistance to paying higher taxes to support education has increased over the same period. Executives are largely united in their support of contracting out, allowing fees to be charged for some school programs. Deficit reduction and use of market mechanisms *are* the corporate agenda whether one turns to the well-articulated views of spokespersons or the opinions of rank-and-file executives.

This neoconservative agenda, however, finds limited support in the policy preferences of the general public, where support for increased spending on education and willingness to pay higher taxes remain widespread. Support for contracting out and for user fees remains well below that evidenced among executives. Whatever the improvements many people would like to see in public education, there is no current crisis in public confidence and general assessments of schools that translates into a consensus for fiscal austerity and privatization policies.

We draw four methodological guidelines from this reanalysis of trends in public support for schools. First, taking the long view is vitally important in setting recent developments in context.⁶ Second, it is important to monitor trends in several general measures of public assessments of schools (confidence, satisfaction, quality) in order to evaluate the reliability of movements in any one indicator as evidence of a broad shift in public support. Third, rather than assuming that declining confidence ratings are reflected in shifting public policy preferences, trends in these preferences need to be examined in conjunction with changes in confidence. Fourth, to aid in ensuring that policy changes are responsive to the democratic will, views of powerful subgroups should be monitored for divergences from general trends in public views.

Finally, although our purpose is to document trends in opinions about schools rather than to explain these patterns, two conclusions emerge to guide the work of explanation. First, *changes* in public views of the schools have relatively little to do with *changes* in what is actually happening in schools. If changing views did actually reflect changing school performance, then we would expect that the views of parents, in contact with the schools through their children, would differ from those of the public as a whole. More specifically, we would expect that parental dissatisfaction with schools would lead public opinion as a whole. In fact, parents and nonparents hold similar evaluative opinions about the school system. The views of both parents and nonparents regarding schools in general thus appear to be shaped by more diffuse influences. These may include changing media portrayals of schooling, deterioration or improvements in the economic climate, and personal predilections to respond to particular types of political rhetoric. The fact that age, or more likely generation, is consistently the most important determinant of attitude differences within the general population suggests a particular importance of responsiveness to particular types of political rhetoric based on differing images of schooling. In the case of funding for schools, older people have a strong interest in competing priorities for government spending, notably health care and pensions.

Second, explanations of changes in attitude need to account for the "loose couplings" found in the data. Changes in confidence ratings for different social institutions are not independent of one another, but neither do they move in lock step. This is also the case for changes in attitudes toward schools in different regions. These "loose couplings" suggest the interactions of both broad-based factors (e.g., general economic climate) and factors specific to educational institutions and to localities.

The accumulation of time-series on important dimensions of public attitudes toward schools now makes possible a sustained, empirically based investigation of opinion change. The first task is to develop an accurate characterization of patterns of change, and a good beginning has been made in this regard. The second and much more difficult task is to develop and test well-specified hypotheses about the determinants of attitude change.

Notes

1. This article is based on a presentation to the Canadian Society for the Study of Education Session *Public Expectations and Satisfaction: Attitudes of Graduates, Employers, Parents and the Public Toward Education in Canada*, at the Learned Societies Meetings, St. John's, NF, June 14, 1997.

2. The OISE/UT Survey (formerly OISE Survey) of educational issues was initiated in 1978 to fill a near vacuum in regular polling on educational issues. It remains the only regularly administered survey on education policy issues in Canada. (The survey was partly modeled on the annual Phi Delta Kappan Gallup survey in the US.) The general population survey was administered by the Gallup Canada until 1992, and thereafter by the Institute for Social Research at York University. A parallel mail survey of a supplementary sample of corporate executives has been conducted at each administration. An active data archive is maintained at the Ontario Institute for Studies in Education, University of Toronto. Over the past 18 years the survey has documented trends in public assessments of schools (satisfaction, changes in quality) and views on educational funding and other core policy areas.

Differences between groups based on OISE/UT survey results are generally statistically significant at the .05 level or better. As a conservative guide, differences between the views of corporate executives and parents in excess of 12 percentage points are unlikely ($p=.05$) to be due to chance; a margin of 10 percentage points can be used for significant differences between the corporate executives and the general population.

We contrast the views of corporate executives to those of the general public as a whole and to parents. The corporate executive sample for each survey is drawn from the latest *Financial Post Directory of Directors*. The response rate is typically about 33%. A majority of respondents are from organizations with 500 or more employees. Corporate executives are too small a sample to be differentiated by demographic characteristics. It is worth noting, however, that many executives are parents of schoolchildren and are more concentrated in the 35-54 age group than the general population sample. (The parents' group on which our analysis is based does not include corporate executive parents. These two groups are mutually exclusive.)

3. Results of Gallup and OISE/UT questions cannot be directly compared due to differences in question wording and in the scales used. In particular, the OISE/UT survey question has a neutral midpoint; the Gallup question does not. Nationally, Gallup recorded the support of 65-70% for higher spending on elementary and high schools over the years 1986-1996.
4. The sharp increase between 1986 and 1988 in the proportion of executives willing to support higher funding is less marked for postsecondary education than for elementary / high schools. In the case of universities, support for higher spending increased in stages: 20% at the beginning of the decade, 30% in 1984-1986, and finally 48% in 1988 before plummeting to levels below those found at the beginning of the 1980s.
5. As this article was in preparation two Canadawide polls conducted in late 1997 (Harris, 1998; *Globe and Mail*/National Angus Reid Poll, 1997) appeared to indicate a sharp revision in public attitudes toward government spending. Both polls found a higher priority for deficit/debt reduction or for a tax cut than for more spending on social programs. On closer examination this change in public views seems more apparent than real. These more recent polls asked about priorities to "increase social spending" (Sun/Roper poll) or for "spending more on government programs" (*Globe and Mail*/Angus Reid poll) without explicitly referencing health and education as did polls conducted an year earlier (Angus Reid, 1996; Edwards & Hughes, 1996b; Livingstone et al., 1997). The OISE/UT survey has tracked public preferences for government spending overall as well as spending for education. Public support for increased government spending for all purposes has consistently been much lower than for spending on schools (Livingstone et al., 1997). For divergent analyses of the late 1997 poll results see Bricker (1997), Feschuk (1997), and Graves (1997).
6. It is also important to keep in mind the factor of sampling error. Poll results are reported as single numbers, and trend lines appear as a hairline moving across a graph. But each single number lies at the center of a "confidence interval" (hence the familiar statement that results should be accurate to 3-4 percentage points 19 times in 20), and the hairline is really a band 6-8 percentage points wide for typical sample sizes of 1,000. Thus caution is required in interpreting sharp changes between any two consecutive polls. Although it is virtually indisputable that confidence in schools dropped significantly between 1989 and 1993, we suspect that the extent of the drop may have been boosted by sampling error. The differences in poll results between 1989 and 1993 are considerably greater than between 1984 and 1994. The proportion of respondents with high confidence in schools was exceptionally high in 1989 compared with prior years; the proportion in 1993 was exceptionally low compared with succeeding years. It may be that the public was riding a wave of growing confidence in the late 1980s that broke soon after. Or it may be that there was a much more modest public reassessment of schools between the late 1980s and early 1990s that got exaggerated in the

polls due to a coincidence of sampling error boosting apparent confidence ratings in 1989 and diminishing them in 1993. We will never know.

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Nelly McEwen
Alberta Education

Satisfaction with Education in Alberta

Alberta Education surveys parents, high school students, and the public as part of its annual accountability cycle. A survey is a form of public consultation that gives ordinary citizens the opportunity to express their opinions on policy priorities and issues. The Alberta surveys are tied directly to the goals for restructuring education. Selected provincial survey results are presented and discussed as well as compared with external groups and against established achievement outcomes. Triangulation helps establish the credibility of survey findings. Wide dissemination of findings encourages discussion and use, thus contributing to a better informed public, more considered government policies, and confidence in public education.

Pour mieux répondre à ses responsabilités, l'Alberta Éducation, de façon annuelle, fait des sondages auprès des parents, des élèves du niveau secondaire ainsi que des membres du public. Cette forme de consultation auprès du public—qu'est un sondage—permet aux citoyens et aux citoyennes ordinaires d'exprimer leurs opinions vis-à-vis divers aspects de la politique en éducation. Ces sondages sont directement rattachés aux buts énoncés pour la restructuration de l'éducation. Nous présentons et nous discutons certains résultats de sondage provinciaux et nous les comparons avec ceux de groupes externes ainsi qu'avec les critères de rendements établis par l'Alberta Éducation. La triangulation aide à déterminer la crédibilité des résultats des sondages. La grande dissémination de l'analyse des résultats de sondage promeut la discussion et l'utilisation qui contribue à mieux renseigner le public, des politiques éducatives mieux réfléchies et de la confiance dans l'éducation publique.

Satisfaction is an important indicator in a democratic society. Because an educated citizenry is essential to the economic and social well-being of a country, citizens must state their opinions about publicly funded institutions so that policy-makers can take their wishes into account when developing policies and making decisions. This article discusses satisfaction with education in Alberta. It examines the findings of surveys administered in 1995 and 1996 to provincially representative random samples of 2,400 Albertans (800 each of high school students in grades 10 to 12, parents of children in kindergarten to grade 12, and the public). Students and their parents are the primary clients of education and have a right to express their opinions on how well schools are serving their needs. The public, a heterogeneous group of citizens representing all of us, pays for education and has a right to express its views on how well education is doing.

If education is to become more client-oriented, then a survey is an important mechanism for achieving a more suitable orientation. A survey is a policy instrument that informs the public policy process and serves to confirm or challenge assumptions and interpretations of student assessments, and administrative and financial data. A survey is a form of public consultation that gives

Nelly McEwen is Assistant Director, National and International Studies and Analytic Services, Student Evaluation Branch, Alberta Education. Her research interests include performance measurement, accountability, education reform, and large-scale assessment.

ordinary citizens the opportunity to express their opinions on policy priorities and issues. Their views can confirm or question policy and practice. Regular use of such consultation allows governments and organizations to tap the pulse of the public and specific groups in order to inform policy decisions. Alternative viewpoints are valuable because they describe the range of opinions among different groups—parents, students, the public, educators, and business. Each group has its own perspective that helps to identify strengths, weaknesses, and issues in education.

Surveys are often the only way of obtaining feedback on the performance of some aspects of education. They provide a systematic way to identify respondents' preferences, whether political, social, educational, economic, or consumer-oriented. Surveys help decision-makers balance the opinions of special interest groups by expanding their base to a more representative sample of the public. The strengths of survey methods are the value of statistical sampling, consistent measurement, and the ability to obtain information not systematically available elsewhere or in the form needed for analyses (Fowler, 1988).

Public perceptions are important for gauging the degree of support for education and specific policy issues. McEwen (1995) found that seven provinces collect information on perceptions about selected aspects of education, but none has done so as long or as consistently as the Ontario Institute for Studies in Education (OISE), which has been conducting biennial surveys of public attitudes toward education in Ontario since 1978. In the United States, Phi Delta Kappa (PDK) has been conducting and reporting American attitudes toward public schools on an annual basis since 1969. In a review of the themes, methods, and uses of five surveys—two provincial (Alberta Education and Ontario Institute for Studies in Education), two national (Phi Delta Kappa and Public Agenda), and one international survey (Organization for Economic Cooperation and Development), McEwen (1996) found five major themes: quality of education, standards and expectations, funding and cost, role in decisions, and curriculum. Each survey also addressed topics of interest to the sponsoring agency. Collectively the findings represent the views of almost 23,000 respondents and provide support for public education in Canada, the US, and 11 European countries. Each survey also raised many important issues for educational authorities to address.

Alberta Surveys

In 1993 the Government of Alberta introduced the concept of three-year business plans for each department, agency, and organization receiving government grants. Alberta Education's (1994) first plan, *Meeting the Challenge: Three-Year Business Plan for Education 1994/95 to 1996/97*, called for more and better reporting of educational information to enhance public accountability for results. It was the product of two years of discussions and consultations with Albertans on the concerns and priorities for education in the future. The plan is updated annually and provides direction for the future of basic (K-12) education in the province; the fourth plan was released in April 1997.

The 1996/97 to 1998/99 plan (Alberta Education, 1996b) contains nine goals and 19 expected results. Thirty-three measures of educational performance are

used to assess the achievement of key results and to ensure restructuring is enhancing school-based decision-making as well as strengthening provincial control of cost and quality. Achievement of results is reported in the province's annual report on educational performance, *Results Report on the Three-Year Business Plan for Education ECS to Grade 12* (Alberta Education, 1996c).

Surveys are an integral component of Alberta's annual planning and reporting cycle. The 1995 satisfaction with education in Alberta surveys were introduced to assess the opinion of seven groups of respondents—parents, high school students, the public, teachers, principals, postsecondary instructors, and business/employers—on selected aspects of K-12 education. Relevant questions from earlier surveys were incorporated to provide trend information wherever possible. The surveys collected data on 12 measures for six of the nine goals in the business plan: (a) learning standards and expectations, (b) parental choice and involvement, (c) improving teaching, (d) increased efficiency and effectiveness, (e) cost of education, and (f) an open and accountable education system. A limitation of this survey (and essentially all surveys) is that the sponsor, that is, the government, determined which questions to pose.

Alberta Education contracted with Environics West, a full-service marketing research and consulting firm, to assist in developing the instruments and to collect and analyze provincial data. In total 3,611 telephone surveys were conducted with provincially representative random samples of each of the seven respondent groups. Results were reported in the first annual provincial results report on the business plan for the 1994-1995 school year (Alberta Education, 1995).

The 1995 results established benchmarks (or baseline data) for satisfaction with the goals addressed in the Three-Year Business Plan. The results of the surveys and the other measures in the plan and report were used to identify improvement areas for the 1995-1996 school year. Survey details are provided in three Environics West reports. In order to help school jurisdictions use surveys at the local level, Alberta Education distributed the set of instruments to all districts (Environics West, 1995b), sponsored a pilot project to compare provincial results with results at the school level and between telephone and questionnaire methodologies (Environics West, 1995a), and commissioned a manual to provide direction and assistance to school jurisdictions in using satisfaction surveys (Environics West, 1995c). Annual revision of the Three-Year Business Plan and its measures and the development of school board plans aligned with key provincial directions will address key areas of improvement.

Table 1 describes the types of respondents, sample sizes, completion rates, and confidence intervals for the 1995 and 1996 provincial surveys. Representative random samples of 800 respondents were collected for each of the three major groups: K-12 parents, high school students, and the public. Smaller samples of other respondent groups were also surveyed: teachers, postsecondary instructors, and business/employers in 1995 and beginning teachers and their principals in 1996. Although it is desirable to include several groups, it is difficult to interpret results from smaller samples compared with the three major groups. Periodic surveying of specific groups, however, can address questions of interest to educators, administrators, business/employers, and

Table 1
Summary of the 1995 and 1996 Provincial Telephone Surveys

Respondent Group	1995 Provincial Surveys			1996 Provincial Surveys		
	Sample	Completion Rate	95% Confidence Interval	Sample	Completion Rate	95% Confidence Interval
K-12 parents	802	54%	±3.5%	800	54%	±3.5%
High school students	800	76%	±3.5%	800	62%	±3.5%
Public	801	42%	±3.5%	801	36%	±3.5%
Teachers ^a	301	79%	±5.8%	92	94%	±9.8%
Principals ^b	103	91%	±9.8%	100	82%	±9.8%
Postsecondary	400	69%	±5.0%			
Business/employers	404	49%	±5.0%			
Total Interviews	3,611			2,593		

Source: Alberta Education (1995, 1996c).

^aIn 1995 a representative random sample of all teachers, in 1996 beginning teachers only.

^bIn 1995 a representative random sample of all principals, in 1996 principals of beginning teachers only.

others whose views are usually part of the public sample. The 1995 surveys were conducted between March 8 and April 7, 1995 and between April 25 and May 27, 1996.

Sample representativeness is essential for confidence in survey findings. Telephone interviewing allows better control of the sample, which helps to reduce the nonresponse bias that is prevalent in self-completed surveys. Alberta Education decided to change from written to telephone methods after the 1992 surveys elicited response rates below 20%. A third of high school graduates and their parents received a questionnaire in the September 1992 mailout of high school diplomas. In total, 1,263 graduates (19% response rate) and 1,188 parents (18% response rate) completed the surveys. Telephone surveying in 1995 quadrupled high school students' response rate and tripled parents' response rate.

Computer-Assisted Telephone Interviewing (CATI) has revolutionized data collection. In this system, interviews are programmed onto computers and data captured as they are collected. This eliminates the need for manual data entry, thus reducing potential errors, and provides the opportunity for immediate compilation and turnaround of responses. It also allows daily review of the sample to ensure that it meets stratification criteria and quotas.

Findings

Selected findings from the 1995 and 1996 surveys are presented, followed by some comparative results for different respondent groups over time, and a discussion of perception and reality. Only results for the 2,400 respondents representing the three major groups (parents, students, the public) are included because samples of 800 per group mean the results are accurate within ±3.5%,

19 times out of 20, compared with larger margins of error for the smaller samples.

Provincial Results

Table 2 presents the degree of satisfaction (satisfied and very satisfied) or agreement (agree and strongly agree) on selected questions. There was a high degree of satisfaction among all respondent groups on most measures. Where common questions were asked across groups, students were the most satisfied, followed by parents, then the public.

The first perception question asked students and parents, "Overall, how satisfied are you with the quality of education that you are receiving in your school" (students) and "that your child is receiving in his/her school (parents)? Are you very satisfied, satisfied, dissatisfied, or very dissatisfied?" High school students (94% in 1995 and 95% in 1996) and K-12 parents (88% in both years) were satisfied with the quality of education they or their children are receiving in their school. Placement of this question at the beginning of the survey was deliberate to ascertain respondents' first impression of satisfaction before they are influenced by subsequent questions.

Goal 1 of the plan is to "focus education on what students need to learn; ensure that high standards are established, communicated and achieved." The desired result of having Alberta's learning standards meet the expectations of Albertans was measured by asking parents and the public if they agreed that students are learning what they need to know. More parents than the public agreed with this assertion: 8 in 10 parents compared with 6 in 10 public respondents. These groups were also asked, "Overall, do you feel the learning expectations of students are too high, about right, or too low?" A significantly higher percentage of both parents and the public rated the expectations "about right" in 1996 (60% parents and 46% public) compared with 1995 (53% parents and 41% public).

On a series of questions about three widely shared goals of public education—high school graduates' preparation for postsecondary education, responsible citizenship, and the workplace—high school students were the most positive: grades 10-12 students agreed that high school graduates in Alberta are prepared to enter postsecondary education and training (87% and 91% in 1995 and 1996 respectively) compared with K-12 parents (65% and 70%) or the public (60% and 68%). Anyone who has been out of high school for some time has only to write any of the grade 12 diploma examinations (there are 11) to appreciate the high expectations held for graduating students today. More students also agreed that they are prepared to be responsible citizens (79% and 89%) than either parents (47% and 53%) or the public (43% and 53%). Significantly more of those surveyed in 1996 agreed with these two assertions, but these differences may be due in part to the rewording of the questions. In 1996 respondents were asked if high school graduates "are prepared to ..." whereas in 1995 they were asked if graduates "are being taught the knowledge, skills, and attitudes to ..." Fewer parents and the public agreed that high school graduates are prepared to enter the workplace (40% and 39%) than high school students (80%). There was no change over time on this question. Survey findings tell us what respondents think but not why. Do parents and the public

Table 2
Selected Findings on the Provincial Surveys (Percent)

Goal	Question ^a	1995			1996		
		Parents ^b	Public	Students ^c	Parents ^b	Public	Students ^c
1	Satisfaction with the quality of education received in school	88	—	94	88	—	95
	Students are learning what they need to know	79	57	—	82	61	—
	High school graduates are prepared to enter postsecondary education and training ^d	65	60	87	70	68	91
	High school graduates are prepared to be responsible citizens ^d	47	43	79	53	53	89
	High school graduates are prepared to enter the workplace ^d	40	40	80	39	39	80
2	Opportunity to be involved in decisions at schools in community	78	62	73 ^e	75	68	73 ^e
4	Teachers provide the help and support needed to learn	—	—	84	81	—	88
5	Teachers use a variety of approaches to meet their individual needs	—	—	82	—	—	88
	Child's school is well run	89	—	—	87	—	—
	Local school system is well run	70	67	—	71	68	—
6	Quality of programs	—	—	—	85	—	92
	Quality of services	—	—	—	81	—	87
8	Value for money spent in school ^f	73	51	—	78	52	—
9	Information on child's educational progress and achievement	88	—	—	86	—	—
	Access to information on how money is spent by:						
	• local school ^g	64	49	—	60	46	—
	• local school board	48	44	—	49	45	—
	• provincial government	32	34	—	36	37	—

Source: Alberta Education (1996c).

^aPercentages represent degree of satisfaction (satisfied and very satisfied) or agreement (agree and strongly agree).

^bParents of students in kindergarten to grade 12.

^cHigh school students (grades 10 to 12).

^dIn 1995, these questions were worded, "High school graduates are being taught the knowledge skills and attitudes to ..." whereas in 1996 they were, "high school graduates are prepared for ..."

^eSatisfaction with the opportunity to be involved in decisions that affect student life in your school.

^fWording for parents, "value for money that is spent in your child's school", for the public, "value for money that is spent in Alberta's schools."

^gWording for parents, "how money is spent in your child's school"; for the public, "how money is spent in schools in your community."

disagree that students are prepared for the workplace because they have a better sense of what is required to work given their experience with the workplace, feel students need a postsecondary education to succeed, are knowledgeable about current economic conditions and their impact on employability, or lack knowledge of what is being taught in school? Are high school students significantly more positive because they are confident about their future, feel they have the knowledge, skills, and attitudes required for the workplace, or some other reason? Students generally have limited or no experience in the world of work, whereas their parents and other adults do. Reasons for opinions need to be explored by more in-depth questioning through interviews or focus groups.

Another desired result is for parents, business, and the community to have meaningful roles in education (goal 2 in the plan). One way for them to be involved is to participate in making decisions about education. All three respondent groups were asked if they are satisfied with their opportunity to be involved in decisions at schools in their community. For students this question asked about decisions that affect student life in their school. Parents were more satisfied (78% in 1995 and 75% in 1996) than the public (62% in 1995 and 68% in 1996), although the latter was significantly more positive in 1996. Students were equally satisfied both years (73%).

Do teachers provide the help and support students need to learn? Significantly more students (84% in 1995 and 88% in 1996) agreed with this question the second year. When this question was added to the parent survey in 1996, 8 in 10 parents agreed that their child's teachers provide the help he or she needs to learn. Students were also asked if teachers use a variety of approaches to meet their individual needs. Significantly more students agreed with this assertion in 1996 (82% in 1995 and 88% in 1996).

Another desired result is for jurisdictions and schools to be efficient in their use of available resources (goal 5). Parents and the public were asked how satisfied they are that their local school system is well run. There was little difference between the two groups in either year with about 7 in 10 respondents in both groups indicating satisfaction. Parents were also asked if their child's school is well run; they were more satisfied (89% in 1995 and 87% in 1996) about the school than their local school system. This finding is not surprising as most parents probably have more interaction with their child's school than with the jurisdiction, and a consistent finding is that the more direct experience respondents have, the more positive they are.

A new question in 1996 asked students and parents to rate their satisfaction with the quality of programs and services provided at their/their child's school: 92% of high school students and 85% of K-12 parents were satisfied with the quality of the required and optional courses offered; 87% of students and 81% of parents were satisfied with the quality of the services offered (e.g., counseling, library, special education). These questions were designed to assess educational opportunities.

Cost containment is a goal of restructuring education in Alberta (goal 8). Parents and the public were asked how satisfied they are that they are "receiving value for money that is spent in their child's school" (parents) and "money that is spent in Alberta's schools (public)." Major differences mark the percep-

tions of these two groups: 7 in 10 parents and 5 in 10 public respondents were satisfied with the perceived value for money spent. Parents were more satisfied in 1996 than they were in 1995 (78% and 73% respectively). The 1996 results report presented five additional displays related to this goal: expenditure per public student per school day, cost of new school construction per square meter, average annual provincial equalized residential mill rates, interprovincial comparisons of expenditures per student, and interprovincial comparisons of per capita expenditures on education. In all instances costs are decreasing (Alberta Education, 1996c). The relationship between perceived value for money spent and reduction in costs is unclear.

Goal 9 aims to ensure that the education system is open and accountable. Most parents (90% in 1995 and 87% in 1996) were satisfied with access to information from their school about their child's educational progress and achievement, and about 9 in 10 (88% and 86% respectively) were satisfied with the quality of this information. Another series of questions asked respondents about satisfaction with their access to information about how money is spent. Again, the closer the respondent is to the source, the more positive the attitude. Parents were the most satisfied (64% and 60% in 1995 and 1996 respectively) with access to information on how money is spent in their child's school compared with the public response about schools in their community (49% and 46% respectively). Fewer parents were satisfied with access to information on how money is spent by the local school board (48% and 49%) and by the provincial government (32% and 36%). Because parents are knowledgeable about what happens in their child's school, they are more positive than the public on related questions. Superior knowledge does not appear to extend to the school board and provincial levels, where parent and public perceptions are similar. A competing interpretation is that people are generally less positive about policy-makers (the school board and government), which may influence their opinions about access to information from these groups.

Where people get their information about education is an important question for educators because it identifies targets for information dissemination. Parents and the public were asked, "Thinking about how you get information about Alberta's elementary, junior and senior high schools, which sources of information have you found to be the most useful?" Table 3 presents the four most useful sources identified by respondents in this open-ended question. Both groups identified newspapers as the most useful source. This finding is consistent with a March 1995 search of online newspaper and newswire databases in which McEwen (1995) found more than 2,000 news items on education available for print and electronic media to use in their coverage of education. In Alberta, newspapers published more than 1,200 articles on education. By contrast, Alberta Education released an average of six press releases per month over 12 months. This example illustrates how the media present far more information about education than a provincial department of education. That more parents identified newspapers as a useful source of information than either the school or its newsletter is a finding that warrants further investigation. Frequency and scope of coverage are areas that could be explored.

Table 3
Most Useful Sources of Information About Alberta's Schools (Percent)

Source	Parents		Public	
	1995	1996	1995	1996
Newspapers	45	46	49	50
School	35	26	15	15
School newsletters	27	38	12	14
Television	16	17	25	21

Source: Alberta Education (1995, 1996c).

Secondary analyses were conducted in 1995 and 1996 to investigate relationships between respondents' perceptions and various classification variables (e.g., school size, level of instruction, jurisdiction type, geographic location, age, gender, and other group-specific characteristics) for the parent, student, and public samples. For all groups the majority of cross-tabulations did not result in substantive differences, suggesting that, overall, the perceptions of parents, students, and the public are relatively stable across the classification variables used in the analyses.

For parents the greatest number of substantive differences (i.e., a statistically significant difference among categories of the classification variable of 10% or more within a generalizable pattern or trend) was found by child's academic performance and preparation for the current grade, and involvement in school and board decision-making, and for students by preparation for the current grade. The findings suggest that parents' perceptions appear to be a function of how well their child is doing in school and their personal level of involvement in decision-making, and students' perceptions appear to be a function primarily of their feelings of preparation for their current grade. This finding is encouraging because it indicates a strong relationship between performance and perception and substantiates the emphasis on academic achievement in schools. It is also consistent with the effective schools literature that advocates a culture of achievement as a means to high student performance (Coyle & Witcher, 1992; Downer, 1991; Zigarelli, 1996). Ensuring students are prepared to enter the grade they are in and promoting high academic achievement in schools will foster more positive parent and student perceptions about education.

The greatest number of substantive differences for the public was found for involvement in school and school board decision-making, parental status, and age. Younger respondents and parents who have children in elementary and secondary school are more positive than older respondents and those whose children are no longer in school. Albertans with children in school are more positive because they have direct experience with education and are better informed. This finding suggests greater emphasis on informing those who do not have children in school might improve public perceptions about education.

Establishing trends requires at least three years of data. The 1997 findings will indicate if changes from 1995 to 1996 continue and if others emerge. It will

Table 4
Alberta and American Ratings of Their Local Schools (Percent)

Grade	Public ^a				High School Graduates ^f	Parents of Graduates ^f	High School Students ^g	K-12 Parents ^g
	1991		1995					
	Alberta ^b (N=1,345)	USA ^c (N=1,500)	Alberta ^d (N=801)	USA ^e (N=1,311)	1992 (N=1,263)	1992 (N=1,188)	1995 (N=800)	1995 (N=802)
A & B	41	42	51	41	72	69	76	77
A	5	10	9	8	21	25	15	28
B	36	32	42	33	51	44	61	49
C	33	33	31	37	23	24	21	18
D	7	10	7	12	4	4	3	3
Fail	2	5	2	5	1	1	<.5	1
DK/NR	17	10	8	5	0	2	0	1

^aTelephone surveys—Question: “Students have often been given the grades of A, B, C, D, or FAIL to indicate the quality of their work. If you graded the public and separate schools in your community in this way, what grade would you give them?” Note: Separate schools are fully funded in Alberta. The American survey excluded this word because these schools are not public in the US. The American question was also worded slightly differently.

^bAlberta Education (1993, p. 71).

^{c/e}PDK Gallup Poll, reported in 1995 (ratings given the local public schools) (Elam & Rose, 1995, p. 42).

^dEnvionics West Surveys (1995).

^fAlberta Education (1993, p. 71). Written survey of high school graduates and parents of high school graduates. Question: “What grade would you give your high school/your son’s/daughter’s high school?”

^gTelephone survey of high school students and K-12 parents (grading their own or child’s school).

also be useful to track whether some of the differing levels of satisfaction among respondent groups converge or diverge over time.

Comparisons Over Time and Respondent Groups

Results are more meaningful and easier to interpret if they have a point of reference. Common points of reference include time, groups, and targets. Results can be tracked over time, either annually or periodically; they can be compared with local, provincial, national, and international groups; and they can be compared against predetermined standards or targets. A target sets an improvement increment over what exists (a benchmark) in an attempt to reach what is desired (the standard). For example, Alberta compares its student performance on provincial grade 3, 6, and 9 achievement tests and grade 12 diploma examinations over time and against achievement standards, and with external comparators on national assessments such as the Council of Ministers of Education Canada’s School Achievement Indicators Program and international studies such as the Third International Mathematics and Science Study in order to have a better understanding of how well students are performing academically. Similarly, survey results can be compared over time and with external groups to help interpret affective perceptions about education. Exter-

Table 5
Provincial Perceptions of the Quality of Education in Schools (Percent)

<i>Quality of Education^a</i>	<i>Alberta Public</i>		<i>Parents of Graduates^d</i>	<i>K-12 Parents^e</i>	<i>Ontario Public^f</i>	
	1991 ^b (N=1,345)	1995 ^c (N=801)	1992 (N=1,188)	1995 (N=802)	1990 (N=1,032)	1994 (N=1,070)
Improved	23	18	15	21	25	23
Stayed the same	40	39	19	41	24	21
Became worse	18	31	40	28	39	35
DK/NR	19	11	26	10	12	21

^aQuestion: "In general, would you say the quality of education provided by the schools in your community has improved, stayed the same, or become worse in the last five years?"

^{b/d}Alberta Education (1993, p. 73).

^cEnviroNics West Surveys (1995a, b).

^eEnviroNics West (1995a, p. 40).

^fLivingstone, Hart, and Davie (1995, p. 22). Question for Ontario public, "Overall, would you say that the quality of education received by students in Ontario high schools had improved, worsened, or remained the same over the past 10 years?"

nal comparators are limited by their availability. Selected satisfaction findings are presented for common questions used in the Alberta, PDK (for the US), and OISE (for Ontario) surveys.

Tracking trends over time can indicate if improvements are taking place. Table 4 presents perceptions of how various respondent groups rate the public schools in their community. This is a question adapted from the annual Phi Delta Kappa/Gallup Poll in the US. The results are presented for the public in Alberta and the US in 1991 and 1995, and Alberta high school graduates and their parents in 1992 and high school students and K-12 parents in 1995. The public results indicate that in 1991 the Alberta and US results were quite similar with about 4 in 10 respondents in both groups assigning the public schools in their community a grade of A or B. By 1995 10% more Albertans were giving their schools an A or B than their American counterparts. This increase can be explained in part by the reduction in the nonresponse rate for Albertans. That more Albertans responded in 1995 may be due to increased media attention to education, especially on national and international comparisons (see the discussion on perception and reality below). The 1992 samples of Alberta high school graduates and their parents were much more positive than the public with about 7 in 10 respondents assigning a grade of A or B to their (or their child's) high school. The 1995 samples of Alberta high school students and K-12 parents were also positive about the school they or their child attends. These results indicate that the closer respondents are to the school they are asked to grade, the higher the grades they give them. The Phi Delta Kappa poll has found this to be true in every year since 1986 (Elam & Rose, 1995). Implicit in this finding is that knowledge of and experience in the education system positively influences perceptions.

Another tracking question asks whether the quality of education provided by schools in the community has improved, stayed the same, or become worse in the last five years. Since the current restructuring began with the 1994/95

plan, earlier surveys permit some indication of the impact of restructuring in Alberta on public and parent perceptions. This is also a tracking question on the OISE survey, although its time frame is 10 rather than 5 years. Table 5 presents the perceptions of the Alberta public in 1991 and 1995, the Ontario public in 1990 and 1994, and Alberta parents in 1992 and 1995. One in five of the Alberta and Ontario respondents (in 1991 and 1994 respectively) was unable or chose not to answer this question. Does this mean that they did not know, had no opinion, did not understand the question, or some other reason? The finding does suggest, however, that a significant percentage of people feel they need more information in order to judge schools. A quarter of the 1992 Alberta parents of graduates did not respond. For the other three samples, 1 in 10 did not respond. About 4 in 10 Alberta public and K-12 parent respondents felt that the quality of education had remained the same in the last five years. In Ontario, more public respondents felt that the quality had worsened over the past 10 years (39% and 35% in 1990 and 1994 respectively), a sentiment shared by 40% of the 1992 Alberta parents of graduates. Trends over time are difficult to interpret given so few data points because of the high and fluctuating nonresponse rate for all groups. Of note is that public nonresponse decreased over time in Alberta (19% to 11%) and increased in Ontario (12% to 21%). Continuing to use this tracking question over time in Alberta will help to interpret the findings. Livingstone, Hart, and Davie (1995), who have been asking this question since 1979, found a slow but consistent decline in the proportion of respondents who see improvement in high school education and a consistently higher proportion of respondents who think quality has deteriorated.

An important addition to the 1997 Three-Year Business Plan is the establishment of targets for survey results. Achievement standards have been in place for many years, where 85% of students are expected to achieve the acceptable standard (a mark of 50% or higher) and 15% are expected to meet the standard of excellence (a mark of 80% or higher) on the provincial achievement tests and diploma examinations. Provincial satisfaction targets have been set for 1999 in six areas: overall quality of education, various aspects of teaching/school, students' computer skills and access to technology in school, high school graduates' knowledge and skills to get a job and preparation for postsecondary studies, information on children's educational progress and achievement, and value for public funds spent on education (Alberta Education, 1997). This addition of satisfaction targets means future survey results can be compared not only over time and among respondent groups, but also according to provincial expectations.

Perception and Reality

Do perceptions reflect reality? This is a difficult question given all the factors that affect opinions. Nevertheless, it is an important one that requires examination of other sources of data that may shed light on changes. Rate of high school completion, provincial achievement, and national and international achievement results provide ways to compare perceptions and student performance.

The percentage of Alberta students who completed high school within six years of entering grade 9 was 68% in 1991-1992 and 69% in 1994-1995, essential-

ly no change. This rate is below the target of 75% completion established for this indicator.

Alberta Education uses linear equating to compare test scores over time. Machine-scorable anchor tests are designed and developed to be parallel to the machine-scorable components of each diploma examination. Linear equating is used to equate the results from each diploma exam to the baseline year of 1992. Has achievement as measured by the diploma examinations changed over the past few years? There have been few significant changes in the level of student achievement on the machine-scorable component of most of the diploma examinations between 1990 and 1995. Mathematics 30 is the exception where student achievement has shown significant improvement each year since 1992 (Alberta Education, 1996a). However, the percentage of students who achieve the acceptable standard in Mathematics 30 has consistently been below the other subjects. In 1995 74% of students who wrote the Mathematics 30 exam achieved the acceptable standard compared with 81% in Biology 30 and 87% in English 30, with the percentages in the other subjects falling between these two. Because annual assessment of the core subjects—English, mathematics, science, and social studies—in grades 3 (English and mathematics), 6 and 9 (all four subjects) in 1995 replaced the earlier method of assessing only one subject per grade per year, it is not yet possible to comment on trends over time at the lower levels.

Student performance on provincial assessments provides an indication of how well students perform relative to provincial standards, but does not indicate how well Alberta standards compare with those elsewhere. National and international comparisons provide a normative frame of reference that can shed light on standards. Canada and the US have participated in two recent international assessments: the 1991 International Assessment of Educational Progress (IAEP II) and the 1995 Third International Mathematics and Science Study (TIMSS). Twenty countries participated in the IAEP II age 13 assessment of mathematics and science, and 14 in the age 9 assessment. Forty countries participated in the TIMSS grade 8 assessment of mathematics and science and 26 in the grade 4 assessment (see Educational Testing Service, 1992; Lapointe, Askew, & Mead, 1992; Lapointe, Mead, & Askew, 1992; Robitaille, Taylor, & Orpwood, 1996, 1997, for a detailed discussion of these assessments).

Table 6 presents the average percent correct for Alberta, Ontario, the US, and the top performing countries on each assessment to give some indication if perceptions relate to student performance. The results for the IAEP age 9 assessment are not discussed because Alberta did not participate in that study. Korea and Taiwan had the best performance on the IAEP II age 13 assessments both in mathematics (both at 73% correct) and science (Korea, 78% and Taiwan, 76%). On the TIMSS grade 4 mathematics assessment Korea and Singapore ranked first (76% correct), while on science Korea ranked first at 74%. On the TIMSS grade 8 assessments Singapore ranked first both on mathematics (79%) and on science (70%). Alberta students performed particularly well in science, ranking third on all three assessments: 74% (tied with Switzerland) on the IAEP II, 68% on the TIMSS grade 4 (after Korea and Japan) and 65% (tied with Japan) on the TIMSS grade 8 assessments. On the mathematics assessments Alberta's students performed better than their Ontario counterparts on all three assess-

Table 6
Student Achievement in Mathematics and Science (Average Percent Correct)

	1991 IAEP I ^a		1995 TIMSS ^b	
	Mathematics	Science	Mathematics	Science
	Age 13		Grade 8	
Singapore	—	—	79	70
Korea	73	78	72	66
Taiwan	73	76	—	—
Japan	—	—	73	65
Switzerland	71	74	62	56
Alberta	64	74	61	65
Ontario ^c	58	67	54	56
United States	55	67	53	58

	Age 9		Grade 4	
Korea	75	68	76	74
Singapore	—	—	76	64
Japan	—	—	74	70
Alberta	—	—	65	68
Ontario ^c	57	63	57	62
United States	58	65	63	66

^aSee Lapointe, Askew, and Mead (1992); Lapointe, Mead, and Askew (1992).

^bSee Robitaille, Taylor, and Orpwood (1996, 1997).

^cResults are for Ontario English in the IAEP II study.

ments; they also performed better than their American counterparts on the IAEP II and the TIMSS grade 8 assessments, and as well as these students on the TIMSS grade 4 assessment. Overall, Alberta math achievement is in the top third of participating countries.

On the basis of the available evidence, Alberta achievement on provincial exams has remained essentially the same between 1991 and 1995. The international assessments suggest that Alberta standards compare favorably with those in other countries, especially in science. Therefore, the modal perception that the quality of education has remained the same (using achievement as the criterion) over the past five years reflects reality. The Ontario results are more difficult to interpret because the time frame is longer (10 years) and there are no provincial achievement data for comparison. The IAEP and TIMSS assessments suggest that Alberta’s achievement standards are higher than those in Ontario and the US, two groups for which comparable achievement and survey results are available. Further investigation into the relationship between perceptions and achievement and other desired outcomes would be interesting.

Discussion

The Alberta surveys provide evidence of satisfaction with desired results in the Three-Year Business Plan. The major strength of Alberta’s government-sponsored surveys is that they are tied directly to the goals for restructuring educa-

tion, which means that the information feeds directly into the policy and decision processes. Other strengths include the use of common questions over respondent groups allowing comparison of multiple perspectives on the issues addressed in the surveys, annual data collection of the three major respondent groups (parents, students, public) to establish a trend line, and secondary analysis of results to explore relationships among classification and perception variables and to identify areas for further investigation and improvement.

We can have confidence in the findings for several reasons. The primary purpose of the surveys was to provide satisfaction measures for most of the goals and desired results in the Three-Year Business Plan that served as a blueprint for the surveys. Evidence of the validity of the areas addressed in the Alberta surveys is provided by the consistency of themes (quality of education, standards and expectations, funding and cost, role in decisions) in four other surveys (McEwen, 1996). Further validation is provided by the fact that two or three respondent groups answered most of the questions, thereby providing multiple perspectives on desired results. Large provincially representative random samples of parents, high school students, and the public, and multiple administrations contribute to the valid interpretation for the intended use. When results are stable on common questions across respondent groups and over time, external validity is enhanced. Use of a third-party agency to collect and analyze the data ensured the credibility and trustworthiness of the data. Furthermore, the survey results are not used in isolation, but together with achievement results and administrative and financial data are used to inform policy and decisions. Dissemination of the findings through the annual results report ensures that the data are open for inspection and use.

The 1995 and 1996 provincial surveys indicate a high degree of satisfaction among all respondent groups on the majority of measures. Secondary analysis revealed few substantive differences on the majority of cross-tabulations between perceptions and classification variables. Substantive differences were found for parents' perceptions of how well their child is doing in school and their personal level of involvement in decision-making and for students, perceptions of their feelings of preparation for their current grade; public perceptions appear to be a function of their knowledge of and direct experience with the education system. Comparisons of Alberta and external groups on two tracking questions indicated that Albertans' perceptions compare favorably with those of respondents in the US and Ontario.

Students are positive about the preparation they are receiving for their future, and parents report they are generally satisfied with their children's education. A consistent finding from the Alberta and PDK surveys is that the closer the respondent is to the education system, the more positive the perceptions. The further removed respondents are from school, the lower the rating. Is this the result of the public's lack of knowledge of what happens in schools (as many public school advocates maintain), or that parents are not critical enough? Almost half of the parent and public respondents identified newspapers as the most useful source of information about education in the Alberta surveys. The implications of this finding include the power of the media to influence perceptions, the need to better inform the general public (the usual target of surveys) about what happens in schools, the desirability of surveying

parents and students in addition to the public, and then reporting the results for common questions across all three respondent groups. Moreover, the educational community should make a concerted effort to publish information about schools in the local newspaper.

Repeating the tracking questions in 1999 would serve two purposes: to assess the impact of restructuring after five years of implementation, and to see how Albertans perceive education compared with respondents elsewhere where different models of education are in place. External comparisons are important for interpreting perceptions. Comparisons on a couple of questions common to the Alberta and the PDK and OISE surveys revealed similar response patterns. Longer trend lines would provide a further check on the Alberta results. A Canadian survey could provide national comparators. The Canadian Education Association sponsored national surveys in 1979, 1984, and most recently in 1990 (Williams & Millinoff, 1990). The Canadian Education Statistics Council included satisfaction in the Pan-Canadian Education Indicators Program, but reported only existing sources rather than sponsoring a new satisfaction survey (Canadian Education Statistics Council, 1996). That seven provinces are already collecting perceptions indicates they consider such information valuable for their work. Collaboration among interested provinces to sponsor a common survey through a national agency would be timely and provide provinces with an opportunity to compare how various respondent groups perceive education in their jurisdiction.

Comparing the achievement results of other groups on common assessments helps to identify if perceptions and performance are similar. The review of achievement results over time on the Alberta diplomas and on two recent international assessments indicated that perceptions parallel somewhat how well students performed. This is encouraging because it suggests that perceptions do reflect reality. This finding confirms the secondary analysis of Alberta perceptions, where parents and students who judged their child's or their own performance and preparation more highly were more positive about education.

Secondary analysis is an important way to mine survey data and identify areas for further research. Two examples serve to illustrate this point. Because student performance and perceptions appear to be closely related, it would be fruitful to investigate how the two influence one another and strategies that could improve both student performance and perceptions. Another area is the importance of various policy issues. Rather than asking respondents directly, one can use actual response patterns to derive importance ratings by correlating questions with a criterion such as, for example, overall satisfaction with education (Chakrapani, 1996). Questions that are more strongly related to overall satisfaction can be interpreted as being more important to a particular respondent group in the sense that they have greater "influence" on overall satisfaction. Areas high in both importance and satisfaction are key areas of success. Areas considered high in importance but low in satisfaction could become priority areas for improvement. Such quadrant analysis is useful for developing future surveys, for planning and policy development, and for developing effective strategies for improving quality and increasing respondent group satisfaction with education.

Conclusion

Satisfaction surveys help to serve the needs of a more open and accountable education system. Their increasing use signals an emerging client orientation in a society that is becoming more vocal in its expectations of public education. Findings can confirm or challenge interpretations from other sources of information and can be used for both policy and accountability purposes. Triangulation helps establish the credibility of survey findings. Wide dissemination encourages discussion and use, thus contributing to a better informed public, more considered government policies, and confidence in public education.

Note

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Gabriella Minnes Brandes

and

Gaalen L. Erickson

University of British Columbia

Developing and Sustaining a Community of Inquiry Among Teachers and Teacher-Educators

This article defines and examines a "community of inquiry" in a context of teachers' professional development. A five-year project involving teachers and university educators who meet regularly to discuss teaching and learning (the Learning Strategies Group) is documented and analyzed. This extended time frame allows for an examination of the changes that have occurred in both substantive features of the deliberations in the group and the dynamic features that characterized the nature of the communication between the participants. Sharing of knowledge, support in knowledge construction, development of collective expertise, engagement in progressive discourse and recognition among peers are the features of the community of inquiry discussed in the article.

Cet article attribue une définition à l'expression "communauté d'enquête" et en fait l'examen dans le contexte du développement professionnel des enseignants et des enseignantes. Dans le contexte d'un projet de cinq ans lorsque des d'enseignants et des enseignantes du niveau scolaire ainsi que des éducateurs et des éducatrices du niveau universitaire se rencontraient de façon régulière, nous avons pu documenter et analyser des données d'observation et de participation du groupe. Identifié comme le Learning Strategies Group, ce groupe discutait de ce qui a trait à l'enseignement et à l'apprentissage. Cette période de temps prolongée permet d'examiner les changements qui se sont produits dans le contenu des discussions à l'intérieur du groupe et aussi dans les aspects de la dynamique de groupe qui caractérisaient le genre de communication parmi les participants et les participantes. L'article discute surtout des aspects de la communauté d'enquête qui ont trait au partage des connaissances, à l'appui dans la construction du savoir, au développement de l'expertise collective, à l'engagement de s'entretenir de façon progressive avec autrui et à la considération envers ses pairs.

Introduction

The term *community* has seen a recent revival in the educational literature. It was used extensively by Dewey (1900, 1916) to describe his ideal teaching and learning environment, but has been most recently revived in large measure as a result of two important trends in the educational research literature. The first trend is centered on the movement to develop a wide variety of collaborative partnerships between schools and agencies and institutions that traditionally have not played a significant role in the lives of school teachers or adminis-

Gabriella Minnes Brandes teaches in the Department of Language Education. Her research interests are teachers' professional development, the use of cases in teacher education, school-university partnerships, and models of collaborative inquiry.

Gaalen Erickson is a professor in the Department of Curriculum Studies and is the Director of the Centre for the Study of Teacher Education. His research interests include student and teacher learning, alternative forms of student assessment, teacher development, and models of collaborative inquiry.

trators. Many of these partnerships are with universities for the purpose of addressing specific needs. These needs include reform in teacher preparation programs, as evidenced by the rapid growth of "professional development schools" (Darling-Hammond, 1994; Goodlad, 1993) or more general reform of the schools themselves (Hargreaves, 1994). There are also movements in some countries to create more partnerships with businesses to address some of the fiscal difficulties experienced by many schools. The underlying rationale for the formation of many of these partnerships comes from the general recognition that schools cannot and should not be asked to solve all the problems created by a rapidly changing society without significant assistance from others who also have a strong interest in maintaining the quality of our educational system. In many of these collaborative partnerships the term *community* has been used to describe the actual, or in some instances the idealized group(s), that are created among individuals from different institutional settings (compare Oakes & Quartz, 1995).

The second general trend follows more in the footsteps of Dewey in that it focuses more on the creation of ideal learning and teaching environments and typically refers to the social grouping of students and a teacher in a classroom setting (Bereiter & Scardamalia, 1993), of teachers and students in a school setting (Sergiovanni, 1994), or of groups of teachers and university educators in a professional development setting (Baird & Mitchell, 1986; Bell, 1993; Lieberman, 1988). This latter trend has been strongly influenced by the increasing popularity of sociocultural theories of learning (Bruner, 1990; Cobb, 1994; Lave & Wenger, 1991; Wertsch, 1991).

It is the use of community in this latter domain of creating, stimulating, and nurturing learning environments that is most germane to this article. In the sections below we briefly describe the context and features of a professional development community in which we have been participants, propose a set of criteria that we think could be used as a basis for defining a "community of inquiry," and finally, discuss how the Learning Strategies Group exemplifies some of these criteria.

Purpose of the Article

We wish to take up some of the above issues by documenting our continuing experiences with a group of high school teachers and university educators that has been meeting regularly for over five years. This extended time frame allows us to examine the changes that have occurred in both the substantive features of the deliberations in this group and the dynamic features that characterized the nature of the communication between participants in the group that called itself the Learning Strategies Group (LSG). We argue that the LSG can be thought of as a community of inquiry by showing that it satisfies most of the criteria that we propose to be important defining features of such a community. Thus our purposes in this article are threefold. First, we identify some of the issues that we encountered and the insights that we have developed from the creation and subsequent nurturing of a community of teachers and university educators. Second, we discuss some of the dynamics of the group interactions. Third, we outline a set of criteria that has been proposed by Bereiter and Scardamalia (1993) to characterize "knowledge building com-

munities" (KBC) and argue that our notion of a community of inquiry can be thought of as an exemplar of a KBC. Before we begin to examine the LSG in greater detail we provide some background information about the broader educational context that may have had some influence on the participants and their respective decisions to become a part of this community.

The Educational Context and Setting of the LSG

In the late 1980s and early 1990s two trends characterized teacher education and curriculum development in British Columbia. First, teacher education was being discussed as a continuum starting with preservice teachers and continuing on with inservice activities for experienced teachers (Bowman, 1991, British Columbia Ministry of Education, 1990). A second trend, as explicitly identified by a Royal Commission on the state of education in the BC school system, was an endeavor to reconceptualize the nature of learning and the establishment of an appropriate educational environment to support learning. The key principles emerging from this commission dealt with issues related to learning and the learner, curriculum, evaluation, and educational policy. Those principles that applied to learning and the learner and are the most relevant to our work were the following:

- learning involves the active participation of the learner;
- learners have a variety of learning styles and they learn at different rates;
- learning is both an individual and a social process (BC Ministry of Education, 1990, pp. 9-10).

Plans for the implementation of this new program were gradual. The implementation began in the primary grades, but teachers in secondary schools felt the pressure to begin to consider some of the implications of the new program. Although there were guidelines and policy statements, there were few specific details. Teachers were searching for avenues to pursue some of the new directions put forth in the document. Finding solutions within the local and specific context of a school was one way to address these new directions. It was in the broad educational context in BC that several secondary teachers approached the university about the possibility of engaging in some professional development activities related to student learning.

The project described here began in October 1991 in a middle-class, metropolitan school. It began as an initiative of several members of the school's professional development committee with an invitation to the university educators to lead two staff professional development days devoted to the issue of improving student learning. After some discussions with the professional development committee, where the university educators stated their strong opposition to one-shot professional development days, there was an agreement that these days should be conceived of as the first step in a longer-term professional development process. At the end of the second day a group of nine teachers expressed an interest in continuing to meet regularly with the university educators to explore further some of the issues related to student learning that were discussed and demonstrated in the workshop sessions during the two days. These nine teachers and four university educators then constituted the initial membership of the Learning Strategies Group, and they decided to meet weekly to discuss and develop teaching strategies that were to be aimed

at increasing the students' interest and their level of involvement in their learning.

The nine secondary school teachers each had at least five years of teaching experience. The group comprised four English teachers, a social studies teacher, a psychology teacher, a science teacher, and two teachers in an alternate school who taught all the school subjects. In the first year of the project four university educators were in the group, including ourselves. The university educators all had previous experience teaching at the secondary level. The two authors continued their involvement in the project throughout the five years.

Participation in the group was on a voluntary basis. The meetings were open to all teachers in the school who wished to join, even on a limited basis. The primary purpose of the group meetings was to discuss teaching strategies and to find new and interesting ways of encouraging students to become more active in their engagement with school learning tasks. The teachers brought to the group anecdotal descriptions of the strategies that they had tried in class, or they discussed possible plans for topics that they intended to teach. These narrative accounts, based on classroom experiences, became the starting point for the group conversations and provided the basic structure for each of the participants to engage in a form of collective reflection or inquiry into specific teaching and learning episodes.

Although the initial contact from the school sought some assistance from the university educators to present some ideas on improving student learning, the primary agenda of the university educators was to establish a longer-term structure for continuing professional development along the lines of the PEEL groups in Australia (Baird & Mitchell, 1986; Baird & Northfield, 1992). Furthermore, the teacher educators expressed an interest in documenting and analyzing the processes involved in establishing and maintaining such a group. Once the teachers understood our purpose and methods for doing this, Gabriella tape-recorded and transcribed notes from each meeting (summaries were given to all the participants at the next meeting). She also interviewed the participants twice in the first year and once a year in the following two years. The interviews were tape-recorded and transcribed as well. These transcripts and extensive field notes from the meetings provided much of the data we used in the following account of the project.

Establishing and Maintaining the Learning Strategies Group

In this section we examine those features that we think now (five years after the LSG was established) were important both in the critical first year of the project and in its continued existence. We also look at some of the changes that have occurred in LSG over this period.

Establishing Routines

The first few meetings were devoted to the formation of routines and to identifying issues of substance related to student learning. The routines discussed involved decisions about chairing the meetings, agenda, confidentiality, when and where to meet, and how often to meet and for how long. The participants were also aware of the varying interests of each member and ensured that a range of issues were addressed.

The participants chose to meet at the school in the morning before the teaching day started. The group started to meet in the middle of the school year and thus had to find times to meet off timetable. Moreover, two of the teachers participating in the group taught in an alternate school, which meant that finding time to suit everyone's schedule was particularly difficult. The teachers decided to meet before the school day for 45 minutes once a week. Although this was inconvenient for those who lived far from school or for parents with young children who did not have child care this early in the morning, they were all keen to come, and meeting attendance was high.

Toward the end of the first school year the administration approached the participants in the project and offered to schedule common nonteaching blocks so that a meeting time could be held during the school day. The teachers rejected the offer, for two reasons. First, this would eliminate participation of the teachers from the alternate school, and the teachers felt strongly that any teacher who wished to participate in the group should not be excluded. The second reason was that the teachers felt that if they met on timetable they would lose some of their autonomy. They maintained that meeting on their own time, coming before school started, or meeting over a weekend allowed them to have complete control over the agenda, the issues discussed, the pace of the project, and its directions.

As part of establishing routines the group had to decide how meetings would be chaired. The teachers decided to rotate the role of chair every four weeks. This decision is different from other similar projects (Baird & Mitchell, 1986) and thus created an interesting situation with both advantages and disadvantages. The main advantage was that because the teachers served as chair for one month, each became more attentive to the needs of others in the group. In this way, all the participating teachers became more aware of the needs of their colleagues and tried to ensure that these needs were addressed. A second advantage related to the responsibility of the chair to liaise between the teachers and university educators, so this was shared among the teachers instead of being the responsibility of just one teacher. This feature also enhanced the feeling of a cohesive and collegial group. The main disadvantage lay in the difficulties associated with establishing long-term routines for initiating an agenda or other pre-meeting plans. In most cases there was little discussion prior to the meeting about its direction and agenda. Thus long-range planning was hard to accomplish. A second disadvantage lay in the lack of time and structure for a single chair and the university educators to reflect on the meetings outside of meeting time. In spite of these disadvantages, the teachers wished to maintain the rotation of chair because they felt it minimized the hierarchical differences among the participants in the group meetings. For this latter reason the university educators chose not to chair any of the meetings, maintaining that the teachers should determine the directions and substance of the meetings.

There were many discussions about routines at the beginning of the project; however, these procedural discussions continued throughout the years so that the established routines could be modified in order to meet new concerns and needs. For example, the participants decided to meet once a week for the first year, then in the second year moved to once every two weeks. When there was

a particular need extra meetings were called. At the end of every school year there was a full-day meeting where both the structure and substance of the year's meetings were examined. The participants analyzed the process they had been involved in, looking at the strategies that the teachers presented in the meetings and at the future directions of the Learning Strategies Group.

Establishing Roles

As early as the first meeting and throughout the project the teachers perceived their main role and responsibility in the meetings as sharing teaching practices. It was the teachers who directed the deliberations; they brought anecdotes from their classrooms, which resulted in various group members raising questions and concerns about teaching and learning. The teachers were willing to share with the group both successes and failures. Through sharing their teaching practices teachers (and university educators) engaged in conversations about the nature of learning and what specific teaching strategies were used to enhance students' active involvement in their classroom.

The university educators perceived their main role as supporting the teachers. They brought their experiences, knowledge of research and relevant literature, and knowledge of similar projects to the deliberations. Another role the university educators played was to document and analyze the process within the group and supply summaries of the meetings and the teaching strategies that were discussed in the meetings. These summaries provided a tool that had a dual purpose: to represent the teachers' accumulated knowledge, and to document the professional development process the participants were involved in. One of the university educators (the first author) also conducted interviews with the participants, which provided the time and opportunity for the group members to examine their involvement in the Learning Strategies Group.

Throughout the first year the teachers occasionally referred to their uncertainties about the university educators' role in the group. It took them time to realize that the university educators had no hidden agendas or interests external to participation in this professional development endeavor. The long-term commitment of the university educators to the project convinced the teachers.

There was no clear definition of roles at the outset of the project. In the initial meeting the university educators said that their purpose was to support teachers who wished to explore their teaching, focusing on students' active involvement in their learning. Two of the university educators had a clearer idea of what this support might look like (because of their previous experience in another professional development project—PEEL). The teachers perceived their own purpose (exploring their practice) and did not state it in terms of defined roles in the group. The university educators were clear from the initial meeting that they did not want to chair the meetings. They wished the teachers to be in charge of the meetings, their content, agenda, and direction.

The teachers decided in that same initial meeting that they wished to share the responsibility of chairing the meetings among themselves. Yet at the outset, the specific role of the chair was not defined or prescribed. The chair took the responsibility of ensuring that teachers who wished to speak had the opportunity to present their material in meetings. However, the chair did not see his or

her role as setting the agenda prior to the meeting or discussing the content of the meetings or their structure with the university educators. The roles of the participants were constructed and defined in the context of the meetings, as opposed to a formal, a priori structure. This allowed each chair to identify how he or she attended to the wishes and needs of the other participants. It also allowed flexibility in running the meetings. Therefore, on occasion the meetings focused on the analysis of the group processes and directions, whereas in other occasions the meetings were geared to discussions of specific teaching strategies. At other times the chair requested early notice from teachers who wished to present in the following meeting, so that the time could be divided to ensure enough time for each presenting teacher. The university educators' role thus was not to plan the meetings or their agenda, but to respond to the topics and deliberations in the meeting.

At the end of each school year different, longer meetings were held in which the participants examined what they had discussed throughout the year and made decisions about the following year. The university educators chaired these meetings and negotiated their agendas with the participants before the meetings. These meetings were more theory-oriented, focusing on abstractions more than earlier discussions of each specific teaching strategy. The participants looked for common themes and threads within their conversations in the weekly meetings. This focus provided the context for discussions of purpose and further directions to be pursued in the following year. These longer deliberations also pointed to the common understandings of teaching and learning the participants shared.

Group Dynamics

From the first meetings the group never lost sight of its primary purpose, which was to focus on sharing and discussing teaching strategies. The participants discussed subject-specific topics, generic teaching skills and strategies, meta-content (e.g., discussions of the relationship between theory and practice), and the process of professional development, in which the participants were involved. The group conversations consisted of descriptions of these strategies aimed at enhancing the students' active involvement in the learning environments the teachers created.

In the first several months of meetings teachers discussed strategies that they had already tried and mostly those that were successful. During those meetings the participants linked these strategies to their own subjects and to generic teaching strategies with which they were familiar. Gradually, over time, the teachers added two new dimensions to the deliberations. First, they began to share difficulties, failures, and dilemmas; second, they used the time in the meetings for planning lessons and units. This slow shift in the kinds of materials and issues raised for discussion was perhaps a result of the development of a collegial and supportive atmosphere where the teachers felt safe to take risks and share their uncertainties with others.

As one of the teachers said in the second interview,

I found I could use quite a few of the things [that were suggested in the meetings].... I find the stimulus of the group really helpful in looking at my techniques and values and at things that I want to do. (18.6.92)

Another teacher phrased the merit of the meetings differently, focusing on questions she now asks herself in her planning:

I now make a conscious effort to do more of it [focus on active learning]. You constantly ask yourself 'Is there a point to this [activity]? Is it a part of learning? Does it make sense?' (9.3.92)

A third teacher discussed the impact of the group meetings on her teaching:

I did that [teaching literature] with much more purpose and direction because I thought about it in the group. I defined my purposes more clearly, and I had seen that it was worthwhile. So that, I have already done it [taught the unit before], now I can talk about it. [My teaching] was directly in response to the group. (11.3.92)

Although the teachers were aware of the value of discussing and sharing teaching strategies, an analysis of the strategies indicates that the teaching practices discussed in the meetings also were characterized by a common understanding of good teaching and learning. The participants all saw learning as a process in which students ought to take an active part. Thus the discussions further clarified the participants' understanding of a particular perspective of learning, which Barnes (1992) describes as "active learning," that underpinned the discussions. Therefore, the teachers' choices of teaching strategies tended to focus on those that contributed to this perspective of learning. In the interviews the participants concurred that they continued to come to meetings not solely for the teaching strategies that were discussed or for the support they received, but also for the opportunities to discuss learning and teaching in more general terms.

The deliberations in the meetings also reflected the participants' teaching backgrounds and interests. Group dynamics played an important role in mediating the nature and substance of the discussions during the meetings. Heterogeneity (having participants who taught a variety of subjects) allowed teachers to discuss both a variety of subjects and generic learning skills, using examples from different school subjects. However, heterogeneity resulted in situations where some teachers' needs and interests were put aside in order to answer those of other teachers. It also meant that at times teachers needed to translate and modify what was reported in the meeting to fit their own subject areas.

From the second year on the LSG became a more homogeneous group, as most of the teachers taught humanities. A homogeneous group meant that the teachers shared a more common background and knowledge of a specific field of knowledge. This led to discussions of subject matter that were at times subject-specific. Such a homogeneous group tended to lack the variety and the diversity of perspectives that were present in the first year. Thus the group dynamics and make-up influenced the direction of the deliberations and the content of the meetings.

Through the deliberations in the meetings the participants began to develop a language and a repertoire of examples to discuss the issues brought to the table. They slowly developed a common professional language that allowed them to examine, discuss, and deliberate on their own teaching practices. This common language allowed for a clearer form of communication, which seemed

to be a contributing factor in making this professional development endeavor so meaningful to the participants. One example that illustrates this deliberative process for creating a common language was the joint construction among the participants of how a sociogram could be used in several different subject areas. A sociogram is a visual diagram that allows students to represent relationships between people, events, or concepts. This usage extends the more traditional function of a sociogram, which mapped social interactions between people. It was first introduced to the group meeting in the context of teaching *The Hockey Sweater* (Carrier, 1979) to a grade 9 English class. The purpose was to show the nature of the relationships between characters and events. Later, another English teacher used the same strategy, this time in grade 8 when teaching *Lives of Girls and Women* (Munro, 1971). This time the task was to compare the two main characters using a sociogram to depict the progression and development of the relationship between these characters. The use of a sociogram was discussed a few months later when a grade 11 class studied the novel *The Edible Woman* (Atwood, 1969). The students were asked to use a sociogram to depict a character and explain how society perceived such a character and how all the characters in the novel were linked. Finally, a social studies teacher extended the use of a sociogram in grade 10, when the students were asked to summarize the chapter and to map the specific themes and concepts in terms of the content of the chapter. As demonstrated above, teachers used sociograms in different contexts, subjects, and grade levels. Each time they used them they brought the specific examples to the discussion. The purposes, refinements, changes, and techniques were examined, discussed, and critiqued. Thus referring to the use of a sociogram became a part of the common language among the group participants, representing both the instances where it was used and the discussions that accompanied these instances.

Defining Features of Communities of Inquiry

Bereiter and Scardamalia (1993) introduce the notion of a “knowledge-building community” as an educational strategy for “producing a school environment that supports development beyond what comes naturally [and] is what we must discover if we are to educate for expertise” (p. 199). They see this approach as an alternative to the two polar instructional approaches of teacher-directed didactic instruction versus student-directed discovery learning. They draw on other examples of KBCs—most notably the scientific research group and other disciplinary-base communities in the social sciences and the humanities, and also industrial firms that have research and development groups for pursuing inquiry. For them the participants in a KBC possess the following characteristics:

- they share their knowledge;
- they support one another in knowledge construction;
- they develop a kind of collective expertise that is distinguishable from that of the individual group members;
- they develop and engage in progressive discourse;
- they demonstrate respect and recognition for peers.

We think these criteria also represent an excellent starting point for our deliberations about the defining features of a community of inquiry as reflected

in the LSG project. Thus we examine some of the features of LSG in terms of these criteria.

Sharing Knowledge

It should be self-evident from the above description of the establishment and functioning of LSG that one of the prime values that permeated all our activities was that of sharing experiences, insights, frustrations, and dilemmas. The meetings were deliberately organized to facilitate this type of sharing. A question might arise as to the nature of the knowledge that was being shared. Although we think this is an important question that is being addressed by a number of scholars in the field (compare Fenstermacher, 1994; Richardson, 1994), we would agree with Bereiter and Scardamalia's (1993) position that the underlying psychological processes of learning something new should have a number of similar features even across a variety of contexts — be it scientists in a disciplinary community, students in a classroom community, or teachers and teacher educators in a professional development community. Hence we conjecture that some of the characteristics and dynamics of these varied learning environments will remain constant even though the nature of the knowledge generated by these communities will be quite different. As suggested above, the status of the knowledge generated by LSG is still probably best described as a form of "craft knowledge" (Grimmett & MacKinnon, 1992) or "practical knowledge" (Fenstermacher, 1994).

Support in Knowledge Construction

The important role played by supportive colleagues in community-like settings has been documented by many others (Barth, 1991; Oakes & Quantz, 1995; Sergiovanni, 1994). However, it is important to try to understand better how this supportive environment assists in the construction of a type of knowledge that would probably not occur in the absence of such a community. In the case of the LSG, teachers brought specific examples from their practice to the meetings, which provided an opportunity for the participants to engage in a form of deliberative inquiry as they either collectively analyzed what did happen (as seen through the eyes of the teacher reporting on the effects of trying a particular teaching strategy) or created a type of group "thought experiment" focused around what might happen if a particular teaching approach were employed to teach a particular set of concepts or procedures.

These activities bear a family resemblance to some of the processes of knowledge construction described by Schön (1983, 1987) in his two books on the development of professional knowledge—a process that he characterizes in terms of an ongoing inquiry into one's practice. "Reflection-on-action" is the term Schön uses to describe situations where professionals examine past performances and make conjectures about preferred courses of action. In the case where the LSG group members deliberated on plans for future lesson activities, Schön likens this activity to experimenting in a "virtual world," much like the architect who uses a sketch pad to experiment with different design features. The context that Schön has drawn on in the exemplary cases in these two books is that of individuals learning to become "reflective practitioners," and hence the support in these contexts is primarily provided by "coaches" who endeavor to model and explain aspects of the practice under consideration. This situation

differs in some important ways from that experienced by the LSG participants in that there were no novice teachers in the group, so the coaching metaphor is not really appropriate. Another way of thinking about this setting is that the group provided multiple coaches to analyze the events under consideration and to provide suggestions for possible follow-up activities (Brandes, 1994).

Collective Expertise

By "collective expertise" Bereiter and Scardamalia (1993) mean the development of a type of knowledge that is distinguishable from what is constructed by the individual group members. That is, the focus is on knowledge building as a community endeavor. For instance, many of the specific examples of reflection-on-action discussed in the above sections such as the use of sociograms, incorporated not only the expertise of the individual teacher (explaining her or his particular use of sociograms) but they drew extensively on the accumulated wisdom of earlier group discussions. Although the particular application of some teaching strategy is a personal process, it was enhanced, elaborated, and ultimately codified by the reflective conversations of the group. One university educator said in an interview,

The whole business [of the meetings] is beginning to move beyond the specific ... beginning to generalize... to become more reflective about the general aims rather than the kind of specific incident. (6.4.92)

As Castle, Drake, and Boak (1995) pointed out when discussing their experiences with a collaborative professional development group, "We discovered for ourselves that sharing is a powerful strategy for facilitating transformation in perspectives" (p. 259). We think that this transformation process can be best achieved through the kind of community of inquiry we describe.

Progressive Discourse

The notion of progressive discourse entails the development of a language and a way of practicing that "motivates inquiry and transforms its results into knowledge" (Bereiter & Scardamalia, 1993, p. 209). It also leads to a recognition on the part of the group members that their current understanding of some phenomena represents an advance over their earlier efforts. Our earlier discussion of the LSG developing a shared language that stemmed from their discussions of teaching and learning is an example of progressive discourse. Furthermore, the above discussion of the sociogram provides another example of this shared experience and discourse. The later discussions about sociograms relied on previous deliberations about the role of sociograms as a teaching tool. Thus suggestions for modifying the sociogram technique to suit new contexts and purposes were linked to previous presentations of sociograms. The group developed a kind of shorthand that captured their earlier discussions and enriched the new ones. In this manner, groups like the LSG can generate a form of knowledge that can be codified and made available for other teachers to use as they see fit. This is exactly what the PEEL teacher groups have accomplished over the past 10 years as summarized in Baird and Mitchell (1986) and Baird and Northfield (1992). This process of codifying PEEL's progressive discourse occurs on a continuing basis through the publication of regular newsletters.

Respect and Recognition for Peers

This characteristic may be considered one of the virtues of any effective community, whether it be an elite scientific research community or a group of grade 10 students engaged in a social studies unit on the French Revolution. We think that this characteristic is most probably a necessary condition to have in place before many of the other community features described above will evolve. For example, in our project the move from sharing successes to discussions of failures and difficulties is one of the indicators of development of a community of peers who trust and respect each other. Teachers in the LSG invited each other to observe them in action in their classrooms as they endeavored to implement the strategies that were discussed in meetings. Another indicator of the degree of trust and respect for each other was apparent in their enthusiasm for team teaching with each other as they experimented with different teaching strategies and different models for organizing curricular materials. In concluding this section, which briefly outlines the features or characteristics of a community of inquiry, we think that Castle et al. (1995) succinctly summarize the importance of several of the above criteria with the following description of their experience in a collaborative project: "Through dialogue, we transcended the limitations of our own experience and values" (p. 259).

Conclusion

The Learning Strategies Group, consisting of teachers and university educators, is one example of a partnership between colleagues from two institutions. The participants developed this community over an extended time. For Sergiovanni (1994) communities are "collections of individuals who are bonded together by natural will and who are together binded to a set of shared ideas and ideals. This bonding and binding is tight enough to transform them from a collection of 'I's into a collective 'we.' As a 'we,' members are part of a tightly knit web of meaningful relationships" (p. xvi). The participants of such a community usually share a common place and over time come to share common sentiments and traditions that are sustaining. When describing a community Sergiovanni proposes "to speak of community by kinship, of mind, of place, and of memory" (p. xvi).

In this article we examine the establishment, development, and dynamics of the LSG, and demonstrate that it shared many of the characteristics of a community of inquiry. The participants shared their knowledge; supported one another as they made sense of their practice. Through the deliberations and progressive discourse they developed a collective expertise that constituted a form of theorizing about their own teaching practices and their students' learning practices. The participants in this community shared an understanding of what good teaching and learning entailed, and more importantly shared an interest in deliberating about and experimenting with their understandings of teaching and learning in the context of the group discussions. The meetings provided the structured environment, and the participants provided both the substantive issues and the support and validation for an ongoing process of inquiry into issues and questions about teaching.

Although the value and importance of collaboration between school and university educators aimed at promoting this type of joint inquiry into practice have long been recognized (Cuban, 1992), perspectives have also differed on the nature and role of theory in informing practice in such settings (Cochran-Smith & Lytle, 1993). There were few discussions in the meetings about the theories of learning presented by the teacher educators at the initial workshops. In the weekly meetings teachers presented incidents from their classrooms, and participants engaged in conversations about these incidents, occasionally mentioning similarities to other incidents and contexts. These deliberations were about practice, and can be considered as abstractions that were anchored in the teachers' practice. Thus, in this localized context, the participants were theorizing about teaching and learning, about change, and about the collaborative process in the group. We think that one of the major factors that promoted this type of personal theorizing was the group ethos, which encouraged the teachers to take risks, to try new strategies, to use the group to debrief their teaching experiences, and to modify the strategies for the next time they used them. Teachers translated and linked strategies from one content area to another. These were then often discussed in terms of more procedures. In this way the experiences in the meetings combined with their past repertoire of practice to inform and modify the theories of learning and teaching held by each of the participants. We think that differentiating between private and public theories is a helpful way of trying to understand the participants' attitudes and views of theory and practice (Fenstermacher, 1994; Richardson, 1994).

The teachers initially perceived the more formalized, public theories as remote from their practice. At the same time, they perceived the group discussions, which consisted of abstracted (or, we would argue, theoretical) accounts of their practice as relevant and important. In other words, these group deliberations enabled teachers' private theories to become more public, albeit restricted to a particular context (Brandes, 1995). Although this process of testing the utility of different teaching strategies in various pedagogical contexts demonstrates the generative nature of theories and proved to be of value to the participants, this type of teacher knowledge nonetheless remains localized and lacks many of the characteristics that we normally associate with formal knowledge (Fenstermacher, 1994). Drawing on our experiences in this group we would argue that theory, whether it stems from external, systematic research studies or is based more on the authority of personal experiences (Munby & Russell, 1994), has the potential to enable teachers and teacher educators to understand better their own practice, and conversely to adapt and modify the theory to fit better the unique educational contexts in which they are operating.

The Learning Strategies Group is one exemplar of a community of inquiry that served as a professional development tool for its members. It was clearly a context in which both teachers and university educators explored issues of teaching and learning that were pertinent to their practice. However, many questions about such communities of inquiry remain. For example, what kinds of shared interests can serve as springboards for establishing communities of inquiry in schools? What support mechanisms are needed to enhance and sustain such communities of inquiry? Finally, what are the implications to the

culture of the school (particularly secondary schools) where such communities exist?

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Kathy Bickmore

Ontario Institute for Studies in Education, University of Toronto

Teacher Development for Conflict Resolution

Drawing from research literature and participant observation in one urban public elementary school's School Development Project, this article illustrates the occasions for teacher professional learning that may be created by a collaborative reform process. In particular, the case study describes teachers' planning deliberations regarding school discipline practices and conflict resolution efforts involving students. The discussion highlights the relationship between teachers managing conflict (and thus learning) in their own democratic planning and students' opportunities to practice new roles and skills for self-discipline and conflict management. The article challenges the common reliance on quick-fix approaches to both teacher development and conflict management in schools.

Basé sur l'étude de la documentation de recherche et après l'observer les participant(e)s d'une école publique élémentaire actifs dans un Projet de développement scolaire, cet article démontre les nombreuses occasions de développement professionnel qui sont possibles grâce au processus réformateur qu'est la collaboration. Plus particulièrement, nous décrivons le processus de planification chez les enseignants et les enseignantes qui discutaient les pratiques de discipline, de gestion et de résolution de conflits à l'école. Cette discussion met en évidence la relation importante entre les enseignants et les enseignantes qui œuvrent à promouvoir la résolution de conflits (par conséquence, l'apprentissage) dans le cadre de leur propre planification démocratique avec la chance qu'ont les élèves de jouer de nouveaux rôles et de pratiquer de nouvelles habiletés qui favorisent la discipline personnelle et la résolution de conflits. L'article se méfie des approches simplistes "toutes cuites" en ce qui concerne le développement professionnel des enseignants et des enseignantes, et la gestion des conflits dans les écoles.

Introduction

One problem that draws teachers to professional development is the challenge of resolving conflicts within the staff, among students, and between teachers and students. In some schools educators are concerned about how to assure sufficient safety and stability in the school environment as a prerequisite for learning. At the same time there is a need for educational innovation—for example, how to improve diverse students' opportunities to learn skills and concepts relevant to managing conflict in a pluralistic, imperfectly democratic world. Many of the common initiatives in the area of school conflict resolution are low-risk and perhaps low-impact, because they focus on safety and stability at the expense of educational innovation—on reducing the visible symptoms of student conflict rather than substantially challenging the prevailing patterns of adult behavior, curriculum, or school organization that may ignore or exacerbate that conflict.

Paradoxically, both peacemaking and learning require the discomfort of confronting conflict. When things really matter to people, they provoke con-

Kathy Bickmore is an assistant professor in the graduate and teacher education programs. Her recent research emphasizes conflict resolution and education for democratic citizenship in public schools.

flict. As Keizer (1988) points out, "only in talking about nothing can we be sure not to arouse any controversy" (p. 11). In this article I draw on research literature and a case study of reform-in-progress in one school to illustrate a range of school-based learning opportunities that may influence teachers' development of knowledge, skills, and inclinations for handling conflict. In particular, the article discusses how teachers' engagement in democratic deliberations on professional matters may (or may not) facilitate their learning to create meaningful conflict-resolving learning opportunities for students.

Little (1993) points out the crucial challenge of professional development for school reform: in order to change learning opportunities significantly for students, teachers need to give voice to their own professional conflicts in order to learn themselves.

The most promising forms of professional development engage teachers in the pursuit of genuine questions, problems, and curiosities, over time, in ways which leave a mark on perspectives, policy, and practice.... [Effective] professional development offers *support for informed dissent*.... To permit or even foster principled dissent ... places a premium on the evaluation of alternatives and the close scrutiny of underlying assumptions. (pp. 136-138, emphasis added)

Teachers in stressed urban public school systems have plenty of reasons for dissent and disagreement, because they face complex problems for which there are no easy answers. However, often such differences are papered over until they explode. The autumn 1997 conflict that provoked a province-wide teachers' work stoppage in Ontario, for example, reflected profound disagreements regarding the responsibilities of teachers that escalated into a heartwrenching social disturbance. That protest crystallized around a Bill (now law) that allowed the government to reduce educational costs by limiting teachers' in-school professional development and preparation time and controlling working conditions that had been negotiated with school boards (Carey, 1997; Janigan & Wilson-Smith, 1997; Mackie & Lewington, 1997; Small, 1997). Conflict highlights underlying interests and assumptions, thus presenting potential learning opportunities. How many such precious opportunities for conflict resolution and learning have been wasted in favor of simplistic "common-sense" solutions? Alternatively, how might educators' dilemmas and disagreements be constructively raised and supported in ways that would foster the careful creation and evaluation of alternatives, rather than deepening divisions and cynicism?

The concern over how to handle school disruption and violence is a prime illustration of Little's point about professional development for school reform: Educators model approaches to conflict for the children in their care while they stretch their own skills to create a safe and effective learning environment (Fennimore, 1997; Opffer, 1997). Extending teachers' "positive liberty" to confront conflict directly can be risky and requires considerable skill to facilitate, but it allows diverse individuals to participate in resolving fundamental problems (Dietz, 1989).

School personnel often respond to students' conflict with an odd conjunction of laissez-faire and coercion, depending on the participants and the form of the problem (Clifton & Roberts, 1993; Pepler & Craig, 1994). Such diagnosis-

and punishment-oriented programs are difficult to administer fairly: for example, they may inadvertently target nonwhite and working-class males who get into highly visible fights, rather than the broader range of girls and boys who participate in less visible shunning or bullying of classmates (Bergsgaard, 1997; Noguera, 1995; Slee, 1995). So-called zero tolerance policies and violence prevention programs often reflect an emphasis on control rather than longer-range learning goals. With the good intention of protecting safety and efficiency, even conflict resolution education initiatives may be coopted by the “powerful logic” of hierarchical school management: this gives neither students nor teachers much room to disagree constructively, to learn, or to create alternatives (Deutsch, 1993).

Conflict resolution initiatives that focus on censoring conflict and preventing visible student violence, such as those highlighted in the case study below, are initially attractive to teachers for important reasons. However, these quick-fix approaches can impede adult learning (staff development) as well as equity and student learning. Avoidance of conflict in teacher decision-making bypasses an important opportunity for teacher learning, and thus for innovation in education for student conflict resolution and learning. The case study that illustrates these tensions arises from my one and a half years of participant observation in a collaborative school improvement initiative in an urban elementary school called Maple School.¹ Before discussing what I learned, I describe the Maple School setting, the particular school improvement initiative in which Maple participated, and my own role in Maple’s school change process and this inquiry.

Background: The Setting

Maple Elementary School is located in a poor, working-class urban neighborhood several miles from the shiny renovated downtown of a midwestern United States city. In spite of being racially and economically segregated, it has been known as one of the “better” schools in the system because it is well managed, with a relatively stable and committed staff that has shown willingness to engage in a series of reform projects. When one enters the school, one sees bright displays of student work on the walls, clean and quiet hallways, and posters inviting community members to frequent special programs planned by staff and parent volunteers.

Ethel Green, Maple School’s principal, is known as an innovative leader throughout the district and beyond. When invited to do so by the district administration, Ms. Green and her staff accepted with enthusiasm the opportunity to participate in the initial pilot of a district-university collaborative School Development Project in four local city schools. Ms. Green, two teachers, and a parent from Maple School went to Yale University for a weekend of training in February 1992. On their return they immediately began communicating with stakeholders in their own school community about this participatory school improvement initiative known as the *Comer process*. Beyond the orientation in New Haven, start-up funding was almost nonexistent. Most of the initiative was carried out in before- and after-school time volunteered by school staff. However, by the time I became involved at Maple in December 1992, the atmosphere in the school was already one of pride in their emerging ac-

complishments and energetic anticipation of school climate improvements that seemed to be underway.

The Comer School Development Project

Strengthening school community relationships for the sake of facilitating children's healthy development is the guiding notion of the School Development Project (SDP). This site-based school improvement initiative was developed by psychiatrist James Comer and colleagues at the Yale University Child Study Center and the New Haven, Connecticut public schools (Comer, 1980). The initiative, widely known as the Comer process, involves broadening school-based decision-making over a period of years, to include collaboration, consensus, and a no-fault stance among a wide range of stakeholders. Because they are consistently present, deeply engaged, and carry professional status, teachers and administrators are typically the most powerful participants in this collaboration, although parents and noncertificated staff are also involved (Carrano, 1990). The SDP relies on local school-university partnerships, rather than hands-on involvement by Yale staff, to facilitate the professional development and formative evaluation that underlie any school change effort. Because the Comer approach involves school-based processes rather than particular projects or programs, it leaves a good deal of the reform open to local interpretation at each school. This process of interpretation at one site, specifically as it is related to using and teaching conflict resolution, is the focus of this article.

The SDP's materials promote three mechanisms for change: (a) school-based decision-making by teachers and other stakeholders, (b) an emphasis on creating healthy environments for human development, and (c) an effort to broaden parent or family involvement in school life (Comer, 1988; Payne, 1991). All three SDP mechanisms are designed to raise, defuse, and democratically resolve the conflicts that are highlighted by change. The SDP processes rely heavily on committee work by teachers and others. Thus the creation of procedures and norms that involve teachers in airing and managing conflict can be seen as a central tenet of SDP. This article focuses on the first two of these elements that became prominent at Maple School in order to illuminate the possibilities and pitfalls of staff development for conflict resolution. First, I describe these two elements of Comer's SDP model as they were implemented at Maple School.

Democratic School-Site Management

A major element of the Comer process model is teacher involvement in major school-level decision-making roles. All three SDP mechanisms were operationalized at Maple School as committees made up mostly of teachers. The centerpiece of the model is a School Planning and Management Team designed to be an umbrella committee facilitating communication, coordination, staff development, and other whole-school efforts. To simplify the name and to connect this initiative with an earlier site-based governance effort in which they had participated, Maple School called this committee the Governance Team. The SDP design called for all other committees and stakeholders (including parents, teachers from various grade levels, community partners, the teacher's union, and other school staff persons) to be represented on this Governance Team.

Maple Governance Team meetings were held in early mornings before the school day began. This limited the involvement of nonteaching staff persons and even teacher representatives from some other committees. The principal attended about one of every three meetings and offered support behind the scenes. The committee's teacher chair had little leadership experience and no particular status at the school. Usually the active Governance Team at Maple School involved less than half a dozen teachers, meeting twice per month to plan and coordinate some of Maple's many special educational, fundraising, and community events. When the parent representatives attended, they often remained relatively silent and distant from the committee's work. This committee's actual activity looked no more like school "governance" than the activity of other committees at the school. Because its mission was broad, diffuse, and beyond the power and resources of the attending members to carry out, the Governance Team (in spite of its grand name) was seen by much of the school community as relatively ineffective or unimportant. Although teacher involvement in democratic decision-making was prominent in Maple's interpretation of the Comer process, in practice this ostensibly coordinating body made fewer decisions, of a less significant nature, than were made by more narrowly focused committees. School-wide staff meetings were also generally short and involved little joint decision-making. Thus teachers' democratic planning at Maple remained fragmented and piecemeal.

Fostering Healthy Environments for Human Development

SDP project schools are encouraged to establish a Mental Health Team comprising teachers, student support personnel, and community mental health professionals who work with the same population of children: the team's goal is to coordinate care of both individual students' special needs and whole-school community-building, to foster a healthy climate for human development. The Maple School community called their committee the School Support Team, to broaden its participatory nature and to avoid what stakeholders saw as Comer's overemphasis on psychological labeling. Maple later supplemented this committee with a (smaller) Intervention Assistance subcommittee, to improve efficiency and confidentiality in handling individual student needs. As is typical in the Comer process, the School Support Team (and its subcommittee) involved counselors from a community agency as well as members of the school staff.

The School Support Team quickly became well respected at Maple, because their mission and the impact of their activities were clear and visible in the school community. The teacher chair of the committee was skilled and well organized. This committee initiated school-wide programs and engaged in problem-solving, collegial advising, and coordination of efforts regarding individual concern referrals. A typical meeting agenda included a period of giving specific help to individual teachers with particular students, followed by a period for managing more general concerns including a fluoride "swish" program for dental health and educational community-building efforts such as conflict resolution projects. This was an active committee: most teacher members were kept busy at, and between, weekly before-school meetings.

My Role: School Change Facilitation and Open-Ended Inquiry

This case study is drawn from my participant observation at Maple School during the one and a half years when I was their School Development Project facilitator. I became involved at Maple School, after trading sites with a university colleague, 10 months after the Maple community's initial introduction to the School Development Project. The notion of a university partnership and university-based facilitators was added to the Comer process by the Yale Child Study Center staff around 1990. The goal was to use local university-based expertise to facilitate replication of school change projects, like Comer's original effort in New Haven, around North America. As with much of the SDP, the designated role of the facilitator was diffuse and unclear, leaving the role to be shaped by particular individuals and contexts. The activities to which I contributed were varied, from facilitating staff development sessions and the development of a peer mediation program, to attending countless committee meetings, to working with a particular teacher's class when she was having trouble, to helping to solve more temporary problems such as setting up computer equipment that had been left unused in a closet. I attended meetings of all SDP committees, but was most active on the School Support Team because of its concern for conflict resolution. I understood my primary responsibility as building professional development opportunities into teachers' SDP participation by creating spaces and guidance for skill-sharing and reflection on joint work.

I participated in informal teacher learning opportunities such as team meetings and project evaluations, not always as leader. I also facilitated some explicit professional development activities such as conflict resolution workshops (for teachers and students) and a series of lunchtime sharing sessions in which teachers discussed classroom problems. These activities were severely undermined by a tight schedule and a lack of discretionary funding: the project provided no supplementary funding for release from other duties, either for the Maple teachers or for me (a university professor). In significant ways the School Development Project was volunteer work for all of us.

Because Comer's collaborative model was first promoted by external forces as a way of provoking change, some conflicts that had been long since ignored or buried at Maple School regained salience. As an illustration, the first direct assistance the school staff asked of me early in the winter of 1992-1993 was to lead a workshop on conflict resolution for Maple's faculty. This was one of the more awkward, although interesting, days we ever spent together, and thus a good indication of the ambiguities of my facilitator role in this environment. Although I planned the day in consultation with the chairperson of an ostensibly representative teachers' committee, some staff came expecting to learn strategies for handling conflicts among their *students*, whereas others had expected to discuss conflicts among their *colleagues*. The rhetoric of collegiality and collaboration exaggerates the consensual aspects of school relationships and may obscure some miscommunications and conflicts that powerfully influence the school development that one can facilitate.

The Inquiry

I spent around three to four hours per week at Maple School, from December 1992 until June 1994, plus several follow-up visits during 1994-1995. My role exemplifies the often curious conjunction of participant and observer: I was an active participant in the meetings, politicking, planning, and experimentation that made up the school change effort, but I was also charged with facilitating formative evaluation of the project and staff development. I took notes, interviewed participants, and co-created and administered interim SDP evaluation surveys in spring 1993 and spring 1994. However, I did not conduct a controlled study. This article provides only a snapshot of reform-in-progress, because I was not involved at Maple until its SDP was getting underway, and was only there for 18 months of an ongoing process. Instead, my learning process at Maple School was something like that of the teachers—fruit of our joint and sometimes troubling engagement “in the pursuit of genuine questions, problems, and curiosities” (Little, 1993, p. 136). Far from being a distant or neutral observer, my commitment to the collaborative change process was built into my role. At the same time, I was not an insider and not on site full time. Perhaps because of being a (trusted) outsider, I could sometimes ask naive or impertinent questions that would start somebody thinking in a slightly different way. The remainder of this article discusses one of the strands of impertinent questions that emerged from my participation in Maple School’s Comer process.

The Role of Conflict in Teachers’ Collegial Decision-Making

Conflict—perceived incompatible objectives between two or more people or groups—occurs in any social system, including schools. Conflict resolution depends on the degree of interdependence (relationship) and of equilibrium (balance) among the parties involved, on the existence of predictable procedures for handling problems, and on mutual awareness of the problems and the possible solutions (Deutsch, 1993; Kriesberg, 1982). These ingredients for conflict resolution—understanding social relationships, understanding conflict and its consequences, and understanding or conducting various peacemaking processes—can be taught (Deutsch, 1993; Hicks, 1988; Horton & Freire, 1990). In addition, conflict stimulates rethinking: It can help to clarify participants’ understanding of one another and of the problem about which they are disagreeing (Bickmore, in press; Hahn, 1996; Houser, 1996). Thus conflict in the process of school reform is a challenge, but it can be a golden opportunity for teacher learning, which can make space for improving student learning.

Where is the space for teacher learning in a reform such as the School Development Project at Maple School? Where and how can teachers find room to communicate, negotiate, and work democratically on the problems of improving their schools when the scope of their power to make decisions is increasingly narrowed by work overload, funding scarcity, and district and state regulation? Comer’s theory, like several other optimistic approaches in the 1990s, asserts that collaborative processes are the ingredient that can empower stakeholders to make change.

[A collaborative school reform process offers] a microcosm of a democratic space where issues of power don’t get papered over but get struggled through. This

can be hard and ugly, but ... Once they start cooking, you see that, of course, most teachers really want to teach, most parents really want their kids to get educated, and, guess what, kids want to learn. (Fine, 1993, p. 17)

On the one hand, the Comer process at Maple School did build a broader participatory space, demonstrably incorporating more voices—and thus more issues and their underlying conflicts—into the cacophony of school decision-making. The SDP committee mechanisms involved many meetings every week in which all who came were able to voice their concerns. More teachers (and a few others), more of the time, had more positive liberty to participate in meaningful decision-making, and thus in learning together, than they had had before the SDP process got underway at their school.

Two major themes of disagreement among teachers persisted while I was involved at Maple School. First, teachers struggled to find ways of handling conflict between teachers and students (viewed as discipline matters) and among students (disagreements and occasional fighting, which caused disruption). Second, teachers sometimes resented colleagues' varying levels of involvement in school community and reform activities. This conflict waxed and waned as people's different types of commitment reflected underlying differences in educational philosophy and priorities. The "collegial culture" promoted by the principal, the facilitator, a core of faculty, and the Comer mechanisms brought many such conflicts into the open and visibly channelled some of them toward mechanisms for democratic discussion and decision-making (Hargreaves, 1991).

For example, Maple's School Support Team managed to clarify and partly to coordinate various teachers' discipline practices, as well as to initiate more direct opportunities for students to learn social skills and conflict resolution. In the first two years of the SDP project, the School Support Team's work on conflict resolution steadily gained support from most Maple teachers. During the first half of many meetings, individual teachers brought confidential concerns regarding particular students they were having trouble teaching. Most of the time these problems emerged from patterns of conflict and classroom management difficulties. The Support Team offered personal and professional support for these teachers, giving detailed suggestions and feedback in addition to coordinating professional help and strategies for managing the particular children's needs. The school-wide efforts of the Support Team and the Governance Team began with small, surface-level activities such as special events and posters in the hallways. The activities of the Support Team, in particular, eventually developed more substance. For example, the committee facilitated social-skill-of-the-week lessons in all classrooms and started a peer conflict mediation program.

On the other hand, democratic decision-making took a great deal of time and energy that had been previously allocated to other pursuits at the school, and urban teachers are nothing if not overworked. If the increased and unfamiliar work roles associated with a teacher-driven reform project do not have clearly visible educational benefits, then they have the potential to aggravate existing subterranean divisions among members of the school staff (Gomez, 1989). For example, some Maple teachers felt disappointed that some of their

colleagues did not seem to contribute enough to the school improvement effort. The noninvolvement of some individuals or subgroups is often seen as evidence of apathy rather than as evidence of an implicitly exclusionary system (Keith, 1971). People tend to get involved in activities that embody the concerns they feel are most important and to avoid those they consider inappropriate. Rather than reconsidering whether their processes and activities were truly inclusive of a broad range of concerns and viewpoints, a few Maple teachers tended to blame some of their colleagues and community members for being less involved beyond their own classrooms. Collegial norms were such that most such complaints were made anonymously, for example, in a June 1994 written evaluation survey, but the sense of blame was pervasive in spite of a generally friendly school climate.

The population of active teacher leaders, and the topics they choose to take on, influences who will be interested in becoming involved in that joint work. The National Center for School Leadership noticed a similar dynamic regarding conflict and collaboration in a middle school where they worked: teachers who were able and willing to participate and to have influence in school leadership activities reported on a confidential survey that their school decision-making (conflict management) process was democratic and participatory. Others, who were silent or silenced in the process, saw the same school processes as autocratic (Polite, 1993). Thus Maple teachers who were less involved in the SDP efforts may have been dissatisfied with the ways Maple's Comer process participants handled the conflicts they considered significant. In the realm of conflict resolution, some teachers did not feel that the social-skill lessons were appropriate in their classrooms; others disagreed with the delegation of responsibility to students in the peer mediation program; and a few others had persistent distracting conflicts in their own classrooms that they were unable or unwilling to bring to the Support Team for assistance. Over time some of these professional differences were brought into the expanding circle of democratic deliberation at Maple School, stimulating passionate conversations and opportunities for collegial learning. Other conflicts were not aired openly during the 18 months of this study.

Professional development that might enable teachers to identify and deal with the educational shortcomings of their schools and classrooms would need to be deeply democratic (Warnock, 1989; Zeichner, 1991). The Comer process at Maple School did establish mechanisms for engaging some teachers in meaningful investigation and dialogue with colleagues. I attended countless meetings that included heartfelt and thoughtful conversation about school-, classroom-, and student-level concerns. People consistently reported that they learned from these opportunities. Most team meetings were in practice dominated by teacher talk: contributions from parent representatives and Principal Green, as well as outside collaborators, were often limited to particular topics, interspersed with relative silence. My assumption that Maple School's teachers did learn from these joint deliberations is substantiated by the way these conversations spawned countless spin-off and follow-up conversations (as well as activities). Furthermore, these busy urban educators "voted with their feet," participating beyond their required work hours because they considered the Comer process meetings worthwhile.

In some respects, however, the teachers' conversations in all of Maple School's SDP committees seemed to be remarkably similar and consistent over time. There were hours of subcommittee reports, and scheduling or budgeting discussions, regarding a vast array of special extracurricular activities. For example, a small group of teachers organized several short drug-awareness programs. Other activities took advantage of visiting experts, and there was a succession of special fundraisers and occasional evening programs. Most of the myriad projects were small-scale add-ons that did not seem to scratch the surface of regular educational practice in classrooms and corridors. There was little clear evidence of change in the work teachers performed in spite of the learning they reported.

In fact, the joint planning work itself was essentially an add-on: meetings almost always took place on teachers' volunteer time, before or after school and at lunchtime. Surely it is naive to expect that more profound changes would have been visible after two years. It is a testament to the power teachers perceived in this process that well over half of Maple's faculty (along with several parents, community service workers, and other staff) continued to volunteer their time to participate actively. Those who were active did this extra work because they felt they were learning and improving their school. On the other hand, my visits to classrooms, private conversations, and written survey results indicated that some teachers' concerns and difficulties were not being voiced, never mind resolved, in these forums. In particular, teachers' challenges with facilitating effective learning and discipline inside their own classrooms, and some questions related to racial and cultural differences, were almost never aired in public. Some conflicts remained unspeakable in this imperfectly democratic environment, so opportunities for learning and change were sometimes forgone. The quantity and quality of time allocated—on the margins of the school day in addition to teachers' regular loads—was insufficient for the development of the deeper comfort level and sophisticated deliberation skills that could have made more conflicts speakable, and thus more teacher learning possible, at Maple School (Solomon, 1995).

The Role of Conflict in Students' Opportunities to Learn

Conflict management is an important aspect of the hidden curriculum, the implicit lessons embedded in the ways particular student behaviors are valued and sanctioned. Discipline, the guidance and management of student behavior, is at the heart of school-based socialization. Because deeds speak more loudly than words, the processes of developing and enforcing school rules, and of grouping and sorting students, are powerful contributors to young people's understandings of themselves as members of society (Clifton & Roberts, 1993; Ingersoll, 1996). Children learn about conflict by observing the ways conflictual incidents are handled (and by whom) and by practicing and internalizing particular norms and roles in relation to conflict management. Teachers at Maple School wielded different types and degrees of authority in relation to students and their conflicts—sometimes in ways that facilitated students' gradual development of their own responsibility and authority, and sometimes in ways that insisted on dumb obedience.

Maple's teachers used a wide range of approaches to discipline in their classrooms, hallways, and schoolyard. When I first became involved at the school, a few teachers' discipline practices often ignored the tenets of good teaching such as the importance of clear explanations, gentle feedback, and guided practice. For example, it was a school rule that students walk silently in single file when moving along the hallways: many students in various classes persistently refused to submit to this regimen. Even when their teacher hurried up and down, shushing, herding, and sometimes threatening students, many such expeditions were anything but silent. In several classrooms obedience was emphasized at the expense of individual initiative or learning, and it seemed that a great deal of time was devoted to scolding children for "misbehaving."

The dilemma of guiding student discipline and conflict management while also maintaining a warm and inclusive environment was a consistent concern at Maple School. Critics point out that control-oriented and culturally bound violence prevention efforts may backfire by reinforcing mutual distrust among members of school communities and breeding additional resistance (Noguera, 1995; Soriano, Soriano, & Jimenez, 1994). Although Maple students were young, several of them did at times exhibit a developing distrust for teachers and alienation from school. Punitive and extrinsic sanctions tend to undermine young people's opportunities to develop self-discipline, skills, and an understanding of democratic citizenship (Schimmel, 1997). If behavior rules are negative, unexplained, or rigid, students may be provoked to subvert or ignore these expectations, especially when not under direct surveillance. Furthermore, such control-oriented approaches do not distinguish constructive resistance (e.g., clarifying procedures, correcting misinformation, or assisting peers) from other forms of "misbehavior" (Kearney & Plax, 1992). From these experiences, Maple students may have been internalizing implicit values that marginalize conflict, blame particular individuals for dissent, and/or assume conflict must be managed by powerful authorities.

Various responses to this challenge of student discipline and conflict management were frequently on the agenda of Comer process team meetings. At first, the Maple School Support Team tried a purely extrinsic behavior management strategy: Teachers were asked to distribute and take away "tickets" (redeemable for rewards such as candy) to students in the hallways if they "caught them being good" (or bad). Some teachers adopted this regime with enthusiasm, but about half of the staff participated reluctantly or not at all, considering the strategy disrespectful and/or ineffective. After several passionate discussions in meetings, the Support Team instituted a more developmentally oriented social-skill-of-the-week curriculum: The committee developed and distributed materials, and all teachers were expected to teach mini-lessons during a given week on, for example, sharing, listening, being respectful, or caring. Because this intervention took place behind classroom doors, it was difficult to assess the degree of teachers' participation and commitment. The lessons themselves may have had little effect on students, but the teachers' jointly negotiated decision to teach social skills rather than simply punishing misbehavior was evidence of a small conceptual shift. Many staff showed considerable pride in their work on this program, for example, on

surveys and by bringing out the materials to show to visitors who came to see Maple's SDP project.

After the Comer process gained momentum during 1993-1994, Maple's staff decided to try a more ambitious approach to conflict management education as an alternative to the regular practice of reprimanding students for eruptions of interpersonal conflict. The project was facilitated by a subcommittee of the School Support Team, in consultation with the Governance Team (which raised money for materials and to release staff for training). One of my responsibilities as facilitator was to coach the development of this peer conflict mediation program. Like many of the earliest (and still common) school conflict resolution programs, Maple initiated a cadre approach: a few students were identified and pulled out of regular classes for special conflict resolution training. A group of about 30 students selected by teachers from across the school were taken out of regular classes for three days of skill-building workshops, after which they were to serve as peer mediators at their school. Periodic pull-out meetings were arranged with a teacher advisor to reinforce skills and to encourage students' self-identification as peacemakers. This peer leadership cadre strategy is attractive because the training (for a few, not a whole school) is affordable, and the program could be instituted gradually without necessarily changing most teachers' regular routines.

Maple's new peer mediators made presentations to several classes to inform students and teachers about their new mediation service and to model non-violent conflict resolution strategies. A few of the children who were trained never became active in the program, but several peer mediators began to serve in pairs on the playground at recess. Their role was to offer assistance to peers who were having interpersonal conflicts and (if the parties agreed) to follow a prescribed series of communication and problem-solving steps, assisting the children to negotiate resolutions to their own conflicts.

Maple's program did not choose model students to be mediators, which often seems to limit the influence of such programs and the willingness of many students to self-refer conflicts to mediation (Close & Lechman, 1997). Instead, Maple's staff chose a range of students whom they saw as carrying leadership potential, although that peer influence often had been used in negative ways. Thus a *small* group of students, many of them seen as troublemakers before the Comer process teams initiated peer mediation, gained a remarkable learning opportunity. Most of these children succeeded in the special training they received, becoming empowered and skilled to act on their own and others' behalf. However, the peer mediation program at Maple had a limited scope. Even with Maple's relatively inclusive approach to choosing mediators, the vast majority of students encountered alternative dispute resolution barely or not at all. About a third of the school population observed one introductory presentation in their classrooms, and a few individual students practiced assisted negotiation as clients (children in conflict who used the assistance of a peer mediator). Broader patterns of school curriculum, pedagogy, and control were not fundamentally challenged by the conflict resolution initiatives taken while I observed at Maple. Although a few students occasionally were practicing new skills of peer-facilitated negotiation, most Maple students, most of the

time, were still practicing isolated subskills and obedient behavior in exchange for tickets or teacher praise.

Like many school conflict management or violence prevention programs, Maple School's SDP conflict resolution efforts primarily involved narrowly focused training in social skills, supplemented by counselling, stricter punishment for certain offenses, and increased staff monitoring responsibilities (Pepler & Craig, 1994, Smith & Sharp 1994). Teachers' assumptions that children's (and not adults') inadequate skills were the heart of the problem were essentially unchallenged by SDP committee discussions, even while some individual teachers came to the Support Team for help with managing conflicts in their classrooms. The conflict management dilemma was not resolved at Maple School. It is understandable that the school staff would wish to put a lid on disruption and violence problems, but premature imposition of surface-level remedies may have avoided or exacerbated tensions without resolving underlying problems. It is not clear that small programs on the margins of schools (like those I observed at Maple School) can adequately address problems of teacher-student or student-student conflict.

Teachers and the young people they teach learn from what they consistently practice, for example from the responsibilities they fulfill in their schools and classrooms. They learn about interpersonal and social conflict from the roles they play, and are excluded from playing, in handling school community questions and problems. Maple students learned (sometimes in unintended ways) from the various and contradictory conflict management models they experienced regularly and from the behaviors they practiced frequently in school.

At Maple Elementary School, as in most public schools, the curriculum and the schoolday schedule are fragmented into predigested bits. Schedules, routines, and rules are similar in each classroom in the name of fairness and predictability even though the students are all different. As Maple's students acted out to varying degrees their alienation from or discouragement with this standard-model schooling, the school's staff responded with a dizzying array of discipline measures to achieve compliance with school norms such as silence, walking in gender-separated lines, independent work, and respectful demeanor. These quick-fix innovations required less time for serious debate and creative joint work, and they never touched the basic framework of school practice. Given the autonomy to avoid it and denied the time and resources to make it work, most Maple teachers, most of the time, chose not to delve too deeply into evaluative inquiry or democratic power-sharing (Wallace & Loudén, 1994).

Professional Development and Conflict Management for Teachers and Students

Maple teachers face large classes of diverse students who often have tremendous developmental needs. I was often reminded of the paradox that a teacher can work hard and teach well and yet "still feel a profound sense of personal failure because the process of teaching is frustrating, unrewarding, and intolerably difficult" (McLaughlin, Pfeifer, Swanson-Owens, & Yee, 1986, p. 420). When they face difficult situations, teachers need considerable ongoing support and opportunities to learn, including inside their own classrooms. Ironi-

cally, because virtually every teacher faces this problem at some time, the Maple School SDP process steered clear of the classroom threshold, and thus avoided any direct confrontation between conflicting teaching and discipline philosophies. Therefore, the Comer process did not visibly change the roles played by most students or most teachers in relation to their students.

The nearly two years of school change activity I witnessed at Maple had little apparent impact on the regular routines, norms, and roles played out in hallways and classrooms. There is no provision in Comer's SDP model to assure teachers of either frequent constructive feedback or common preparation times for collegial exchange. The SDP approach did not *prevent* such collaboration, but Maple's teachers had no extra funding that could have provided time for truly in-depth joint deliberation and planning. Given this resource scarcity, confronting their fundamental questions and conflicts did not always seem worth the risk. Without the benefit of more space for confronting and dissenting on the most difficult questions, Maple's SDP teams often settled for quick-fix projects that never became part of the basic fabric of school life.

In the area of conflict resolution, one could argue that the Comer process did have some limited impact on teachers' understandings and behavior toward students at Maple School. When I arrived at Maple a few months after the SDP was initiated there, the school was a friendly place where conflict among adults was generally avoided. Teachers kept to their own classrooms, either sinking or swimming, and professional disagreements were largely unspoken. Conflict did exist, however, as became apparent in my first staff development meeting with Maple teachers: The Comer process did allow some of that conflict to surface as a learning opportunity for teachers. The disagreements, regarding levels of staff participation in school development and priorities for managing *student* conflict, persisted throughout the time I was there. Although enough consensus was achieved to initiate jointly the student conflict resolution efforts discussed above, these efforts were kept small and marginal by persistent philosophical and practical differences that were not all openly discussed among staff. To some degree Maple's staff did begin to organize more of their discipline practices around long-range goals of facilitating student learning and guiding students to take on positive responsibilities. This change apparently represented learning for some teachers, brought about through debate and dialogue with their colleagues. On the other hand, in this short year and a half, Maple's prevailing patterns of conflict management did not fundamentally change.

The unknown, the controversial, and the problematic are fuel for good conversation and the sparks that motivate inquiry for learning (Britzman, 1992; Graff, 1992; hooks, 1994). Critical thinking skills (among teachers or other learners) cannot be developed without critique and thus conflict. However, participants' diverse histories and relationships affect the degrees to which they feel safe and respected, even in an apparently open discussion process (Bickmore, 1993; Ellsworth, 1989; Kreidler, 1990; Rossi, 1996). In theory, Comer's model offers "support for informed dissent," which would facilitate teacher learning (Little, 1993). However, people's common aversion to conflict and the budget-constrained tight schedule of this urban school conspired to

limit the time devoted to truly open democratic discussion. Many of Maple's staff engaged enthusiastically in SDP discussion opportunities, in spite of the risks and personal effort involved, and reported that they consequently improved their understandings and skills as teachers. Other staff felt less welcome, or less able, to engage in these forums across differences in perspective. It is natural that teachers would fall back on "common scripts," handling conflict much the way schoolteachers have handled conflicts for generations, rather than live with unacceptably high levels of interpersonal and intrapersonal conflict in an already stressed urban environment (Metz, 1990).

Democratic inquiry and action in a conflictual context are, after all, not easy. Such a project requires a particular kind of professional development support, not technical skill training, because the problems are complex and require opportunities for adaptation and practice, but nonetheless some kind of catalyst and sufficient space for the constructive airing of contrasting viewpoints. Otherwise severe time constraints and the associated questions of power and money to reallocate that time get in the way (Solomon, 1995). Teachers in a stressed and resource-squeezed context will often avoid serious inquiry and evaluation. It is easier to look at students' conflict and to try to "fix" students' behavior than to understand or alter one's own institutionalized habits of conflict management.

Teacher professional development for conflict resolution would require: (a) new patterns of interaction: replacing norms of isolationist privacy with autonomous participation, and creating safe space for airing and managing dissent; and (b) sustained opportunities for democratic deliberation, resulting in teachers developing awareness of conceptual categories, alternative approaches to problems, and inquiry strategies. In effect teachers need much the same kinds of support for complex learning as do their students.

Conflict resolution is an example of complex learning that can facilitate other learning, and there are no short cuts. The case of Maple School shows that many teachers will seize and make use of such opportunities even when they are offered no time or extra resources and that their efforts can make a difference in their students' learning environment. Yet simply putting busy teachers in committee meetings together is by no means sufficient support for professional development. Insufficient time and support for conflictual conversation can stall and subvert any efforts toward inclusive participation or lasting school change. Equipping teachers with skills and mechanisms for managing conflict is a crucial element of helping them to create peaceful and challenging learning environments for students.

Note

1. All proper names used in the case study are pseudonyms.

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Vivian Hajnal

Keith Walker

and

Larry Sackney

University of Saskatchewan

Leadership, Organizational Learning, and Selected Factors Relating to the Institutionalization of School Improvement Initiatives

Institutionalization of school improvement initiatives was examined using information gathered from 93 schools involved in school improvement projects. Teachers and administrators assessed their efforts at institutionalization of the initiatives and the overall effectiveness of their school. During the initiation period personal knowledge of successful experiences at other schools was associated with increased success in institutionalizing changes, whereas pressure from system personnel was less likely to be positive. The nature and quality of leadership behavior, the extent of collaboration, the alignment with school mission and division goals, and the degree of staff involvement were strong determinants of institutionalization and school effectiveness.

L'institutionnalisation des initiatives pour l'amélioration des écoles a été examinée selon l'information tirée de 93 écoles qui participaient à des projets d'amélioration scolaire. Des enseignants, des enseignantes, des administrateurs, et des administratrices ont évalué leurs efforts pour assurer l'institutionnalisation de certaines initiatives ainsi que l'efficacité générale de leurs écoles respectives. Pendant la période d'initiation, on associait la connaissance personnelle de telles expériences réussies dans d'autres écoles avec un succès accru de l'institutionnalisation des nouveaux changements. Cependant, les forces provenant du personnel au niveau du district scolaire avaient une allure moins positive. La nature et la qualité du comportement du leadership, l'étendue de la collaboration, l'alignement avec la mission de l'école et avec des objectifs du système scolaire et le degré d'engagement du corps professionnel déterminaient fortement le degré d'institutionnalisation et l'efficacité des écoles.

During the past two decades many school improvement initiatives have been informed by the effective schools research. Much of this literature, however (Scheerens, 1990, 1993; Scheerens & Creemers, 1989), is critical both of our understanding of how schools improve and of the stability of the improve-

Vivian Hajnal is a professor in the Department of Educational Administration. She teaches courses in educational finance, research design, and change. Her interests include equity issues and teachers' work life.

Keith Walker is a professor in the Department of Educational Administration. His interests include applied and professional ethics, school governance and policymaking, leadership philosophies and practices, community relations, and school improvement.

Larry Sackney, a professor in the Department of Educational Administration, is also Director of the Saskatchewan Educational Leadership Unit. His interests include school effectiveness, personnel management, and organizational analysis.

ments. The research on which this article is based was designed to address some of these issues. Our purpose here is to examine why and how schools become involved in improvement programs, as well as to explore the notions of relationships between organizational learning and leadership, and their relationship to successful institutionalization of school improvements.

In a previous article we addressed such issues as the reasons for a school's becoming involved in an improvement program, the nature and focus of the planning activities, the factors that influenced implementation of the initiatives, the key players and their roles, and some of the factors that contributed to institutionalization (Sackney, Walker, & Hajnal, 1995). In this article we briefly summarize our results and explore further the issues of leadership and organizational learning as they affect institutionalization.

We begin with a brief discussion of institutionalization, organizational learning, and leadership. The conceptual framework and research design are then outlined, with a description of the Saskatchewan School Improvement Program (SSIP), followed by a discussion of our findings and conclusions.

Educational Change and Institutionalization

Change is a complex process, and not easily understood (Fullan, 1993). Cuban (1992) referred to incremental and fundamental change. Fullan and Miles (1992) and Fullan (1993) spoke of first- and second-order change, whereas Louis and Miles (1990) distinguished between *change in* and *change of* an organization, with the latter involving cognitive, behavioral, and value transformations (Sackney et al., 1995). What Fullan referred to as "tinkering," or first-level change, does not alter the fundamental norms of the organizational culture. Second-level change, on the other hand, involves a radical transformation in which deep-seated values and norms undergo a paradigm shift (Kühn, 1962).

Holly, Wideen, Menlo, and Bollen (1987) suggested that change is a cultural phenomenon, and that the successful conclusion of the process of change is the restabilization of the organizational culture. Corbett, Firestone, and Rossman (1987) examined the role of "sacred norms" in teacher resistance to change and concluded that they give meaning to the teacher's work. A challenge to these norms, therefore, requires a traumatic integration of new meanings. In essence, the old culture has to give way to the new.

Another view is that change is a dynamic process that has no definite conclusion and no absolutely predictable results (Dixon, 1994; Fullan, 1993; Fullan & Miles, 1992). For organizations, then, institutionalization is characterized by the capacity for continuous change. Similarly, Louis (1994) contends that "research on how to change schools falls into a paradigm that might best be called managed change" (p. 4). She observed that most change is messy, uncertain, and circular; in many instances action precedes planning, vision follows activity, and leaders tend to be preoccupied with "minding the store" (pp. 4-5). This view is in keeping with the notions of chaos theory and postmodern thinking (Mitchell, Sackney, & Walker, 1994). Change and institutionalization, it would appear, are messier than researchers previously thought.

Change comes in four phases: initiation, implementation, continuation, and outcome (Fullan, 1991). All are embedded in each other, and although institutionalization may be the result, it has its beginnings in the initiation phase.

Institutionalization as a construct has at least three meanings. Yin (1981) used the term *routinization* to describe what happens at the end of the process: the appearance of new practices to displace the old. Miles (1983) saw institutionalization as an organizational process with a critical number of committed users necessary for it to occur; the individual is a key factor in successful institutionalization (Fullan, 1993). A third perspective views change from the vantage point of the individual user (Hord & Hall, 1986). When three user-related vectors—teachers' feelings about the innovation, teachers' behavior relative to the innovation, and the shape the innovation takes in practice—reach a critical level, institutionalization is said to have occurred.

Fullan (1991) concluded that the reasons for unsuccessful institutionalization were largely the same as those for unsuccessful implementation. Eastwood and Louis (1992) concurred, noting that there is a tendency for initiatives to stall in mid-implementation because of increasing resistance on the part of individual users. There appears to be a threshold that must be crossed during implementation before institutionalization can occur.

In a previous article we proposed that an "outcomes" subprocess be added to the construct (Hajnal, Sackney, & Walker, 1994), one that views change from a spiral rather than a linear perspective. Institutionalization can then be viewed as a continuous cycle of renewal and growth, a dynamic learning process manifested in an increased capacity for ambiguity and change (Sackney et al., 1995). What becomes institutionalized, then, is not change so much as the attitude toward change (Shakotko, 1995). Both the organization and the individual are enabled to think and work within new paradigms and are continually transformed as a result of their experiences.

The Learning Organization Perspective

Recent literature on change emphasizes the evolutionary and the dynamic nature of the change process (Fullan, 1991) as well as the importance of continuous learning and adaptation (Dalin, 1989; Louis & Miles, 1990; Senge, 1990). Between the primary user and the organization there exists a complex interrelationship of reciprocal influence (Sackney et al., 1995). Senge (1990) viewed change as an ongoing, dynamic process in which the learning capacities of the participants combine synergistically to create an increased capacity for growth.

Increasingly, attention is being given to understanding school change through the notions of "learning organizations" and "communities of learners." Garvin (1993) characterized the literature on learning organizations as "murky, confused, and difficult to penetrate" (pp. 78-79), and pointed to the utopian imputations and the near-mystical terminology of some scholars as being at least partly responsible. A well-conceived and actionable definition of the learning organization, he argued, would make the topic more accessible. Garvin himself defined the learning organization as one that is "skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insight" (p. 80). Learning organizations are adept at five management activities: "systematic problem solving, experimentation

with new approaches, learning from their own experience and past history, learning from the experiences and best practices of others, and transferring knowledge quickly and efficiently throughout the organization" (p. 81).

Kofman and Senge (1993) described learning organizations as "spaces for generative conversations and concerted action," where "people can talk from their hearts and connect with one another in the spirit of dialogue ... [to create] a field of alignment that produces tremendous power to invent new realities ... and to bring about these new realities in action" (p. 16). Like Garvin (1993), they argue that the concept of a learning organization can be both empowering and tranquilizing, and that a "learning organization must be grounded in three foundations: a culture based on transcendent human values of love, wonder, humility, and compassion; a set of practices for generative conversation and coordinated action; and a capacity to see and work with the flow of life as a system" (Kofman & Senge, 1993, p. 11).

A distinction needs to be drawn between learning organizations and the processes of organizational learning. In her study of organizational learning in an elementary school, Mitchell (1995) reviewed the literature according to psychological, sociological, organizational, and combined perspectives. According to the psychological perspective, personal attributes and propensities tend to shape the patterns of learning in an organization. The sociological perspective focuses on the importance of social constructions, interactions, and influences relative to collective processes. The organizational perspective attends to the influence of rules, roles, patterns, values, and practices whereby people make collective decisions about change and stability. Finally, Mitchell pointed to an integrated perspective resulting from the combination of "personal cognitions, organizational structures, and group norms; all of which contribute to a set of shared understandings about how information will be handled and how decisions will be made" (p. 26). This integrative perspective on organizational learning, she argued, is instrumental in studying situationally nested subjects.

In his work on organizational learning, Cousins (1994) considered the learning capacity of organizations as influenced and conditioned by nonrecursive environmental and organizational factors. Educational research, he argued, should make sense of, and learn from, the metamorphosis that occurs in organizations that "are extraordinarily open and forthcoming, thrive on experimentation and risk, tolerate ambiguity while at the same time are able to construct consensus interpretations and are driven to surface and eliminate hidden barriers to collective learning" (p. 37).

Dodgson (1993), like Mitchell (1995), held that interdisciplinary approaches and perspectives hold the most promise for deepening our understanding of diffused and shared learning in schools. "While there are areas of agreement," he wrote, "there remains a great disparity in the fundamental underlying assumptions of the different approaches, such as the differing focuses on outcomes and processes" (p. 390).

Kim (1993) characterized organizational learning as "dependent on individuals improving their mental models" (p. 44). In other words, we must learn to make our view of the world explicit and relevant to a given context.

Individual frameworks then become embedded in the world view of the organization.

To the research of others we would add from our own work the following behaviors as measures or indicators of extant organizational learning: engagement in professional learning and growth activities; critical examination of current practices; experimentation with new practices; sharing information openly and honestly; valuing the diversity of opinions; engaging in dialogue regarding teaching and learning; developing a shared vision; engaging in collaborative processes; engaging in self-reflection; learning from past experiences; sharing professional expertise among colleagues; asking for help when necessary; striking a balance between too much and too little change; and aligning the school's activities to its mission and the goals of the district.

The Roles of Leadership

An increasing emphasis on the individual as the unit of change constitutes a significant shift from the previous focus on the organization (Sackney et al., 1995). The role of the principal and central office administrators has received considerable attention. Schein (1992), for example, observed that "organizational learning is not possible unless some learning first takes place in the executive subculture" (p. 50). Rallis and Goldring (1994) noted that, whereas previously principals were responsible for program administration, they "are now charged with facilitating, enabling, motivating, and coordinating the empowered professionals in their building" (p. 3)—this in addition to working with parents and community groups.

If school improvement is to be achieved, principals and central office administrators must encourage teachers to participate in school governance (Sackney, in press). Block (1987) argued that empowering others is a state of mind. The trouble is, many administrators are reluctant to share power (Sackney, in press) and do not see the advantages of empowering those below them. Giola and Sims (1986) posited that "cognition is strongly implicated in organizational change. Adaptation to change can be seen, first and foremost, as a cognitive challenge ... developing adaptive capacity suggests the need for a more complete understanding of the nature of organizational cognition" (p. 351).

The more effective schools appear to be characterized by a culture that promotes teacher involvement. Both Fullan and Hargreaves (1991) and Sackney and Dibski (1994) employed the notion of collaborative cultures to describe schools where joint planning and decision-making existed. Smylie (1992) found that teachers were more willing to participate if their relationship with administrators was open, collaborative, and supportive, and less willing if their relationship was closed, exclusionary, and controlling. Senge (1990) argued that in a learning organization leaders are designers, stewards, and teachers. Sergiovanni (1992), on the other hand, talked about "substitutes for leadership," where every teacher is a leader. Leithwood (1992) used the term *transformational leadership* to characterize the type of administration required in the development of a collaborative culture, whereas Fullan (1992) suggested that principals must establish norms of continuous improvement as well as norms of collegiality that respect individuality. School-based administrators must

foster conflict resolution skills, teacher development that emphasizes inquiry and reflection, and improved communication systems; they “must learn to influence and coordinate non-linear, dynamically complex change processes” (Fullan, 1993, pp. 74-75).

The recent literature views leadership as a means of bringing purpose and relevance to the relationship between individuals and the larger entity—a notion similar to Bolman and Deal’s (1991) idea of symbolic leadership. Sergiovanni (1994) noted that a school may need strong and direct leadership when it is in trouble, but the need would lessen as the problems subsided. Thereafter, the need for community leadership would increase. Duke (1994), taking a somewhat different approach, examined leadership in terms of “organizational drift” (vs. mission attainment) and “teacher detachment” (vs. commitment). When a school is perceived to lack direction and coherence, the need for leadership increases. Similarly, when individuals withdraw psychologically while remaining physically present, the need for leadership increases. However, when commitment is high and drift is low minimal or no leadership may be required.

Taken together, the recent literature points to a more humanistic leadership style that is symbolic, transformational, and facilitative. Proponents of change have consistently argued for a greater dispersion of leadership opportunities and functions among stakeholders (Sergiovanni, 1994). Darling-Hammond, Cobb, and Bullmaster (1995) examined reform efforts that resulted in professional development schools (PDSs): schools that are said to “create communities of learners” while presuming that “student and teacher learning are interrelated” (p. 2). Shakotko (1995), focusing on change in a rural system, found that the most active elements of change agency were “a sense of purpose, an internal locus of control, a willingness to take risks, confidence, professional competence, and engagement in collaborative efforts” (p. 123). Where administrators were perceived to be coercive, cautious, or ambivalent toward change, teachers tended to exhibit uncertainty, resistance, passivity, and resignation. On the other hand, where administrators offered “optimism, enthusiastic support, and an empowerment of educators to risk and take an active role in the decision-making process” (p. 118), the change agency status of teachers was supported and confidently pursued.

Appreciating the roles of leadership in bringing about the successful institutionalization of school improvement initiatives, we developed a number of practices related to leadership. These included: helping staff members identify and articulate a vision; encouraging shared values, beliefs, and attitudes related to teaching and learning; sharing leadership among the staff; working toward school improvement; encouraging regular evaluations of progress; leading by doing rather than by telling; modeling problem-solving; stimulating people to focus on activities as they relate to students; encouraging high performance and professional development goals; treating each staff member as an individual with unique needs and expertise; helping staff think about the personal ramifications of school change; ensuring adequate involvement; linking school goals and system goals; and encouraging dialogue on the teaching-learning process.

Although the overall conceptualization of the study incorporated many variables, the emphasis in this article is on organizational learning and leadership.

Conceptual Framework

The influences that initiate and sustain the change process, and hence the learning organization, can be understood by examining the technical, political, and cultural forces that operate in an individual school (Tichy, 1992). The technical perspective emphasizes the rational approach and deals with the skills, competences, and task orientation of the teachers, as well as the human and financial resources of the school. The political perspective deals with the conflicts and compromises that are inevitably part of the process. The cultural perspective focuses on the importance of shared norms, beliefs, and values among school personnel and the symbolic meanings they attach to their everyday work. A fourth perspective in this study addressed the opportunities that existed for organizational learning such as systems thinking, team learning, shared vision, mental models, and personal mastery (Senge, 1990).

We judged that these four perspectives would be evident during the various phases of the program; that is, initiation, implementation, institutionalization, and visible outcomes. This judgment was supported in part by Shakotko (1995), who found that technical influences were seen to be essential during the initiation phase, whereas political forces were important during the implementation phase. We contended in addition that the cultural perspective would necessarily come to dominate if institutionalization were to occur. Finally, the internal and external support structures and the human aspects of the process are important in understanding the institutionalization of change.

Research Design

This article reports on one aspect of a larger project the purpose of which was to identify successful school improvement initiatives and indicators of institutionalization. The project was based on the Saskatchewan School Improvement Program (SSIP). As the SSIP has been described elsewhere (Hajnal et al., 1994; Sackney et al., 1995), only a cursory overview of the program and research design are presented here.

The Context

The SSIP was a provincially initiated inservice program based on the effective schools research (Austin, 1979; Brookover & Lezotte, 1979; Brophy & Good, 1987; Coleman et al., 1966; Edmonds, 1979; Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988; Murphy & Hallinger, 1985; Rutter, Maughan, Mortimore, & Ouston, 1979). Its purpose was to build a capacity for group planning and problem-solving at the school level in order to foster high levels of student learning and success (Hajnal et al., 1994). It was developed on the premise that the school is the basic unit of change; hence a school-by-school design was adopted. It focused on nine characteristics of effective schools: competent leadership; a shared vision; a caring climate; quality instruction; a planned curriculum; staff development; systematic monitoring and evaluation; parent and community involvement; and collaborative problem-solving. The program

further delineated those factors that make a school effective and how people in effective schools work together.

Thirteen schools were involved in the pilot study in 1986. The program was eventually expanded to include some 140 schools throughout Saskatchewan (of a possible 825), including a variety of sites (urban and rural) and organizational structures (e.g., K-12, K-8, 9-12). In order to participate, each school had to identify an SSIP team—the principal, a teacher, and a central office person—which was responsible for facilitating the process. The various SSIP teams met three times during the year to report on their progress, to help one another solve problems, and to learn new strategies and processes to further their work. Provincial consultants provided additional support.

Survey Design

The Dynamics Schools Project Questionnaire was developed to collect empirical data for the pilot study. The final form of the questionnaire, refined after a pilot with several teachers and administrators, requested information on demographics, areas of focus for improvement, factors affecting initial planning, groups and factors that influenced the development of SSIP, the impact of SSIP, common problems encountered in the implementation of SSIP, sources of assistance, the outcomes of SSIP, measures of teacher efficacy and orientation, leadership, organizational learning, and current uses of SSIP. Participants were invited to make written comments, and a number of outcome measures were also used.

Using the mail distribution services of the school divisions, the questionnaires were distributed to the teachers and principals of the 140 schools. Questionnaires in envelopes were not directed to specific individuals. Two follow-up letters were mailed to the schools in an attempt to improve the response rate. Follow-up telephone calls indicated that those schools who chose not to respond had dropped SSIP. Owing to the distribution process, we cannot specifically report the response rate.

Data Analyses

Means, standard deviations, and frequency counts, cross-tabulations, t-tests, and regression analyses were conducted using the Statistical Package for the Social Sciences. Principal component analysis of a number of scales was undertaken to discover the underlying constructs. Global measures were used to determine the overall effectiveness and success of implementation (Hajnal et al., 1994). A probability less than .05 was used to determine a statistically significant relationship.

Findings

Exploring leadership and organizational learning factors, our overall purpose was to outline some of the indicators of institutionalization as ascertained by the program.

Context

In total 377 responses were received from 93 schools. The number of respondents per school ranged from 1 to 17, with an average of 4 respondents per school. Men and women were represented equally. Respondents were experienced teachers having worked an average of 11 years at their current school

and 17 years in the profession. Ninety-three percent worked full time, 7% part time.

The program identified 16 areas of focus—eight at the classroom level and eight at the school level—with educators able to select as many areas of focus in their schools as was realistic. Respondents were asked which areas were a major focus, a minor focus, or not a focus at all for their school. At the classroom level, high expectations for student learning was identified as a major focus by 54% of the respondents, followed by productive learning environment (47%), and a variety of instructional strategies (46%). At the school level, two areas of major focus—caring climate (88%) and shared vision (75%)—were identified most often, followed by quality instruction (53%), collaborative problem-solving (47%), and staff development program (45%). Other areas of focus at the classroom and school level were identified by fewer than 45% of respondents. Overall, schools paid more attention to school level as opposed to classroom level attributes. Initially for many schools, cosmetic changes were the first areas to be considered. Only after they had had some experience with SSIP did some schools work on instructional strategies.

Outcome Measures of SSIP Implementation

Using a 10-point scale, teachers were asked to rate their school on its overall effectiveness (OE) and on the success of the school's implementation (SOI) of the SSIP model. Although effectiveness ($m=7.32$, $\sigma=1.56$) was rated higher than implementation ($m=6.14$, $\sigma=2.47$), there was greater variability in the rating of implementation. In addition, one outcome variable reported the quality of school administrative leadership (AL).

Leadership

Underscoring leadership as a critical element in school improvement, we examined its influence in the SSIP processes and on the school. The administrator's efforts to visit classrooms for supervision purposes, the influence of district-wide programs, and the quality of school leadership were also examined.

Classroom visits. Teachers were asked how many times an in-school administrator had visited their classrooms for the purpose of formal supervision during the current school year. Fully 46% of respondents reported that they had had no visits, whereas 44% reported one or more. Respondents were split into two groups according to the two categories—no visits, and one or more visits—and t-tests were employed to determine if there were differences. Teachers who were visited by their principal for purposes of supervision reported significantly higher means for OE, SOI, and AL.

Clearly a principal's classroom visits are important to the school in a variety of ways. Teachers whose principals visited their classroom for the purpose of supervision evaluated the quality of school leadership higher than those whose principals did not. They reported that their schools were more effective, and they experienced more success implementing the program.

System-level leadership. Several researchers (Louis & Miles, 1990; Rosenholtz, 1989) have suggested that there must be an optimum level of pressure and support from central office for successful change to occur. To examine this issue we asked whether the school's improvement program was part of a coor-

minated, system-wide effort and why the school had become involved with SSIP. Responses to the first question revealed that 51% of the schools involved were part of a system-wide effort.

The two groups—those who were part of a system-wide effort and those who were not—reported somewhat different areas of focus. Cross-tabulations and chi-square analyses were conducted for each focus. If the school was part of a system-wide effort, it was likely that it would have more focus on instructional strategies; carefully planned and delivered lessons; the alignment of curriculum, teaching, and testing; clear instructional goals; systematic curriculum planning; and quality instruction.

Teachers who were part of a system-wide effort rated their schools lower in overall effectiveness than those who were not, but significantly higher ($M_s=6.4$, 5.8 ; $t=2.13$; $p=.03$) on the success of the school's implementation of the SSIP model. Consequently, it is clear that a system-wide effort had an effect both on the success of the implementation and on the areas of focus selected for SSIP.

In an attempt to understand the process better, we tried to determine which reasons for becoming involved with SSIP would explain the success of implementation or the lack of it. Using SOI as the dependent variable and the 10 reasons for becoming involved in the program, a regression analysis was conducted (see Table 1). Only 10% of the variance was explained. "Successful experiences of another school" was associated with increased success, whereas "Pressure from the director of education" was associated with decreased success in implementation. Although it is the prerogative of central office to initiate involvement with SSIP, pressure from the director at the initiation stage was viewed negatively. This may indicate that there are more and less appropriate times in the change process for pressure and support.

Variance in the quality of school leadership. Using AL as the dependent variable, a regression was conducted with the 18 leadership tasks as independent variables (see Table 2). Altogether, 69% of the variance in the perceptions of quality of leadership was explained. Because the beta coefficients are based on standardized scores, the magnitude of the coefficients can be compared directly. "Leads by 'doing' rather than simply by 'telling'" was the most important task that predicted teachers' perceptions of the quality of administration followed by "Is appropriate for our school goals" and "Works toward school improvement." "Encourages teachers to do work collaboratively" was the fourth most important predictor, although its significance level was .06.

To determine the underlying structure of leadership, a principal component analysis was conducted on the 18 leadership questions. Using a Varimax rotation, two factors were determined that accounted for 73% of the variance. The first included items that dealt with leadership aspects in the school (LSCH); the second consisted of items primarily concerned with the principal's personal relationship with the teacher (LTEA). Factor loadings and eigenvalues are presented in Table 2. Factor scores were determined by adding the responses to the questions that displayed factor loadings greater than or equal to .60. Rather than using the individual leadership functions in further analyses, the two factors LSCH and LTEA were used. Given the variety and quantity (18) of leadership functions we examined, the existence of only two underlying dimensions was interesting. Successful leadership is evidenced in both a gener-

Table 1
Teachers' Perceptions of Reasons Why Schools Became Involved with SSIP
and Summary of Regression Analysis Predicting Success of Implementation
(N=334)

Reasons for Involvement with SSIP	Percent*	Correlation	Regression Information	
			β	p
Successful experiences of another school	11.6	.13	.11	.04
Pressure from director of education	19.9	-.22	-.21	.00
Initiative of central office	27.5	.08	.09	.10
Initiative of the principal	34.5	-.01	-.07	.21
Initiative of a group of teachers	15.1	.13	.10	.06
Need for a vehicle of change	18.3	.07	.01	.91
Pressure from the community	2.2	-.02	-.05	.32
Have always been an innovative school	10.5	.12	.09	.08
Desire to be a more effective school	42.0	.14	.07	.26
Were experiencing conflicts	10.8	-.02	-.03	.54

Note. Regression information and correlation coefficients in boldface indicate $p < .05$.

*Percent of teachers who selected each reason. As teachers were able to select as many reasons as they wished, the total exceeds 100%.

al strengthening of the school culture and in a nurturing of the individual. The general concern for the school included such functions as developing a vision; sharing values, beliefs, and attitudes; and leading by example. Nurturing of the individual is apparent in the acknowledgment of the teacher as a person with unique needs, expertise, concerns, and personal reactions.

Organizational Learning

We examined 15 behavior items as measures or indications of extant organizational learning. A six-point scale was employed; means and standard deviations are presented in Table 3. To understand the role played by these indicators, a regression analysis was conducted using SOI as the dependent variable and the 15 behaviors as the independent variables. Thirty-eight percent of the variance in implementation was explained by the variables and four were significant (see Table 3). "Engage in collaborative processes" was the most important predictor followed by "Align the activities to the school's missions" and "Align the activities to the district's goals." Although having a positive correlation with SOI, "Engage in dialogue regarding teaching and learning" displayed a negative effect beta in this regression equation. Apparently this variable acted as a suppressor variable in the regression equation. The explanation for this is not apparent. However, it is possible that the necessity of engaging in dialogue to reach agreements may have caused a kind of paralysis, resulting in a lack of action and a less effective implementation or that the negative beta is purely an artifact of the regression process.

To determine the underlying structure of organizational learning, a principal component analysis was conducted on the 15 behaviors. Using a Varimax

Table 2
Teachers' Perceptions of the Extent to Which the Leadership in the School Exhibits These Behaviors (N=203)

Leadership Behaviors	M	SD	Factor 1*	Factor 2*	Regression Information	
			LSCH	LTEA	β	p
Helps the staff to identify and articulate a vision	4.15	1.36	.82	.35	.00	.98
Encourages shared values, beliefs, and attitudes	4.24	1.30	.81	.39	−.06	.38
Shares leadership broadly among the staff	3.98	1.47	.69	.45	.04	.53
Works toward school improvement	4.50	1.36	.83	.31	.15	.03
Encourages us to regularly evaluate our progress toward our goals	3.97	1.42	.78	.37	−.02	.80
Leads by 'doing' rather than simply by 'telling'	4.07	1.58	.75	.42	.27	.00
Models problem-solving techniques	3.74	1.42	.73	.48	−.02	.77
Is appropriate for our school goals and priorities	4.12	1.38	.75	.45	.19	.01
Stimulates me to think about what I am doing for my students	3.94	1.39	.73	.47	.08	.23
Encourages only the best performance from us	4.10	1.34	.68	.51	.08	.21
Encourages teachers to work collaboratively	4.22	1.40	.64	.57	.12	.06
Frequently acknowledges my good performance	3.75	1.54	.34	.77	−.04	.49
Encourages me to pursue personal professional development goals	4.03	1.45	.38	.74	.07	.26
Encourages me to think about some of the personal ramifications of changes in the school	3.74	1.39	.42	.72	−.02	.68
Treats me as an individual with unique needs and expertise	4.17	1.57	.34	.81	.07	.29
Ensures adequate involvement in decisionmaking	3.92	1.48	.42	.76	.00	.98
Links school goals to division goals	4.05	1.32	.33	.63	.00	.96
Encourages dialogue on the teaching-learning process	3.93	1.30	.54	.67	.03	.62
Eigenvalue	6-pt scale		12.14	1.01		
Reliability coefficients			.97	.93		

Note. Regression information and correlation coefficients in boldface indicate $p < .05$.
*Factor loadings in boldface indicate which questions were added together to produce the factor scores.

rotation, three factors explained 74% of the variance. The first factor, COLLAB, described engaging in collaborative processes such as sharing professional expertise among colleagues. The second factor, INDLEARN, was more individually focused, representing a willingness to engage in professional learn-

Table 3
Teachers' Perceptions of the Extent the Staff is Willing to Engage in Organizational Learning Behaviors and the Summary of the Regression of These Behaviors Predicting Implementation of SSIP (N=313)

Organizational Learning Behaviors	M	SD	Factor 1*	Factor 2*	Factor 3*	r	Regression Information
			collab	indlearn	scmigo		β p
Engage in professional learning and growth	4.56	1.11	.26	.83	.23	.25	.01 .91
Critically examine current practices	4.33	1.22	.32	.80	.23	.27	-.06 .48
Experiment with new practices	4.30	1.12	.29	.81	.21	.23	-.08 .25
Share information openly and honestly	4.39	1.29	.78	.37	.13	.29	.01 .88
Value diversity of opinions	4.06	1.29	.74	.29	.22	.31	-.01 .88
Engage in dialogue regarding teaching and learning	4.45	1.19	.59	.48	.32	.26	-.20 .01
Develop a shared vision	4.32	1.25	.52	.42	.48	.44	.03 .75
Engage in collaborative processes	4.33	1.22	.66	.42	.36	.44	.31 .00
Engage in self-reflection	3.91	1.22	.44	.39	.54	.39	.05 .52
Learn from past experiences	4.37	1.13	.60	.39	.38	.34	.02 .81
Share professional expertise among colleagues	4.59	1.17	.78	.23	.23	.33	.05 .48
Ask for help when required	4.25	1.27	.82	.14	.20	.26	-.11 .13
Strike the right balance between too much and too little change	4.09	1.20	.65	.26	.39	.38	.09 .20
Align activities to the school's mission	3.95	1.27	.31	.21	.86	.56	.28 .00
Align activities to the division's goals	3.78	1.26	.19	.21	.89	.52	.23 .01
Eigenvalues			8.98	1.06	1.00		
Reliability coefficients			.93	.88	.90		

Note. Regression information and correlation coefficients in boldface indicate $p < .05$.
* Factor loadings in boldface indicate which questions were added together to produce the factor scores.

ing and growth and to reflect on and experiment with ongoing practices. The third factor, SCMIGO, pertained to aligning activities to school and school system goals. Factor loadings and eigenvalues are presented in Table 3. Factor scores were determined by adding the responses to the questions that displayed factor loadings greater than or equal to .60. Rather than using the individual organizational behavior questions, the three factors COLLAB, IN-DLEARN, and SCMIGO were used in further regression analyses.

Implementation Success and Overall Effectiveness

In assessing whether the school improvement program was implemented as planned or whether some changes occurred during implementation, 76% of respondents reported only minor changes, 7% reported that things went exactly as planned, and 17% reported major changes. Seventy-five percent of respondents reported that the school staff engaged in school improvement planning on at least a yearly basis, and 65% reported that staff evaluated those plans on at least a yearly basis.

Two regression analyses were conducted, the first using SOI, the second using OE as the dependent variables. The independent variables included the two leadership factors, the three organizational learning factors, plus "System-wide effort," "Engage in planning at least on a yearly basis," and "Evaluate plans at least on a yearly basis."

Sixty-one percent of the variance in the implementation of SSIP was explained by the nine variables used (see Table 4). The four most important predictors included the willingness to align activities to school mission and district goals, to engage in school improvement planning on a yearly basis, to treat teachers as individuals with unique needs, and to evaluate plans on at least a yearly basis. Schools that made major changes in the program during implementation were less likely to be successful in their implementation. This was the only variable with a negative coefficient that was significant.

Forty-six percent of the variance in the overall effectiveness of the school was explained by the 10 independent variables that included SOI. Table 4 indicates that school leadership had the largest beta value, .43. The collaboration factor derived from the organizational learning questions and SOI had similar predictive ability. Although positively correlated with the overall effectiveness of schools, participation in a system-wide effort and alignment with mission and goals displayed negative beta values when combined with the other variables in the regression equation.

Leadership in a school, particularly leadership that strengthened the school culture, was a strong predictor of the implementation of SSIP and the overall effectiveness of the school; however, it was administering to the teachers that helped predict the success of implementation. The importance of leadership in the school was reinforced by these analyses.

Organizational learning, represented by the factors "Collaboration," "Individual learning," and "School mission and district goals," was positively correlated with the implementation of SSIP and the overall effectiveness of the school. Collaboration, although not affecting the implementation of SSIP, was a predictor of the overall effectiveness of the school. Taking the other variables into account, the willingness of teachers to align their activities with the mis-

Table 4
Summary of the Regression Analysis for Variables Predicting the Success of
the School's Implementation and the Overall Effectiveness of the School
(N=233)

<i>Variables</i>	<i>Implementation of SSIP model (SOI)</i>			<i>Overall effectiveness of the school (OE)</i>		
	<i>r</i>	β	<i>p</i>	<i>r</i>	β	<i>p</i>
Leadership of the school	.58	.12	.15	.60	.43	.00
Leadership of the teachers	.53	.19	.01	.55	.01	.95
Collaboration	.40	-.00	.95	.43	.23	.00
Individual learning	.28	-.06	.27	.33	.11	.11
Alignment with school mission and division goals	.52	.34	.00	.25	-.21	.00
Part of divisionwide effort	.12	.02	.63	-.09	-.13	.01
Changes in implementation of plan	-.22	-.14	.00	-.17	-.06	.26
Engage in school improvement planning on at least a yearly basis	.57	.27	.00	.24	.08	.28
Evaluate school improvement plans at least on a yearly basis	.51	.14	.02	.17	-.11	.13
Success of your school's implementation of SSIP				.47	.21	.01

Note. Regression information and correlation coefficients in boldface indicate $p < .05$.

sion of the school and the goals of the system helped to predicted the success of SSIP implementation.

Individual concerns, represented by the individual learning component of the organizational learning construct, was neither a predictor of the implementation of SSIP nor of the effectiveness of the school. Although attention to this concern might well result in more satisfied teachers, it appears to have had little effect on the two outcomes we examined.

Teachers' sense of self-efficacy has received considerable attention in education (Ashton & Webb, 1986; Gibson & Dembo, 1984; Hajnal, 1991; Midgley, Feldlaufer, & Eccles, 1990; Woolfolk & Hoy, 1990) and particular interest has extended to its effect on student outcomes. Recently interest has turned to the effects of teacher self-efficacy on professional community (Louis, Marks, & Kruse, 1996) and teachers' desire to participate in decisionmaking (Taylor, Tashakkori, & Hardwick, 1996). In this study we examined the relationship between teacher self-efficacy, organizational learning, implementation of school improvement plans, and overall success of the school.

Five questions were used to examine teacher efficacy. Using the mean for the five questions, teachers were divided into two groups, high and low teacher efficacy. T-tests were used to determine that there were differences between these two groups of respondents in their perceptions of organizational learning and in success of implementation. However, no significant differences existed between the high and low teacher efficacy groups on their perception of the overall effectiveness of their school.

Discussion and Conclusions

Initial attempts at school improvement for the schools in our study focused on cosmetic changes rather than teaching and learning. Most efforts in the early stages concentrated on improving the school climate (88%) and on developing a mission (75%). The shift in focus to instructional concerns generally occurred only after the schools had had some experience with SSIP. Those schools that did focus on instructional initiatives were more effective and tended to have more central office involvement, in their change efforts. Educators expressed early preferences for improvement initiatives that did not impinge on their classroom settings, indicating that individuals and organizations prefer to develop an increased capacity for change before such close-to-home initiatives are undertaken (Louis & Miles, 1990). Those aspects of change that are at the core of schooling may require a deeper cognitive, behavioral, and value transformation (Sackney et al., 1995).

Leadership is critical to initiating, sustaining, and institutionalizing school change (Rallis & Goldring, 1994; Schein, 1992). Louis and Miles (1990) found that no matter how talented a staff might be collectively, schools with ineffective principals were likely to be unexciting places. Similarly, Rosenholtz (1989) found that superintendents and principals who were "stuck" tended to have schools that were "stuck." As well, Johnson and Pajares (1996) found the support of the principal enhanced shared decisionmaking. In this study the leadership exhibited by the administrators in the school and the leadership exhibited by teachers had the greatest effect on both the success of school improvement initiatives and the overall effectiveness of the school.

Our data support the contentions that the institutionalization of change is not easily accomplished and that change is messy. Miles (1983) found that pressure and support from central office were necessary if change was to occur. Louis and Miles (1990) concurred to the extent that pressure and support were necessary initially, but thereafter the ownership of change had to shift to the staff. Our study found that in the initiation phase, pressure from the director of education was viewed negatively. However, schools that were part of a division-wide effort were more successful with their school improvement programs, but not necessarily with their overall effectiveness. If the improvement effort was system-wide, more attention tended to be paid to classroom skills, curriculum, systematic planning, and quality instruction.

Several basic tenets of administration were supported by this study. In those schools where classroom supervision was emphasized, SSIP was more successfully implemented. As well, SSIP was more successfully implemented in schools where the teachers reported that they engaged in planning and evaluating school improvement plans at least on a yearly basis.

Teachers who reported the school improvement plan was implemented exactly as planned or with minor changes reported greater success with implementation, greater overall effectiveness of their school, and a superior quality of school administrative leadership. When teachers reported major changes in implementation of the school improvement plan, these changes produced a negative effect on the implementation. This finding supports Fullan's (1992) observation that poorly designed change efforts were usually doomed to failure and suggests that although flexibility is required in the

change process, adequate initial planning continues to be an important element in the change process. Another conclusion is that the quality of the school administrative leadership has an influence on how the change process moves forward, and better leadership ensures that the change process does not become derailed and require major changes.

Our study concluded that the quality of leadership was important for the institutionalization of SSIP. To engage in successful school improvement efforts required an empowering leadership that focused on a shared vision, such that staff took ownership of the initiatives. Where the emphasis was on facilitating, on support and encouragement, staff involvement and the chances of success were greater than where the focus was on telling. Our data further supported the conclusion that schools that were pressured into becoming involved in SSIP by system personnel or the principal were less likely to be successful in institutionalizing changes.

Principal component analysis of our leadership scale identified two underlying dimensions: school-level effort and personal attention. Leaders who want to implement change will have to pay attention to both school and personal factors. School-level factors included attending to a shared vision, providing resources, and establishing a climate supportive of change. Personal factors included paying attention to individual differences, facilitating and empowering, encouraging collaboration, and building a climate of trust and caring that, in turn, encourages change; the principal must know when to back off and when to step in. Regression analysis indicated that in successful school improvement programs the leaders “led by doing rather than telling,” and teachers were encouraged to work collaboratively in achieving school goals and setting appropriate priorities. We also found that encouraged teachers were more resilient in the face of change.

Another aspect of the conceptual framework was to focus on the degree of organizational learning that occurred. In this respect practices that enunciated a clear mission for the school and practices that supported collaboration were important. Teacher comments indicated, further, that if organizational learning was to be part of the school culture, there must be sufficient opportunity for meaningful dialogue, and this dialogue must occur in a climate of trust.

Conducting principal component analysis of the organizational learning behavior scale pointed to three underlying dimensions: collaboration, individual learning, and a sense of vision. Louis (1994) and Cousins (1994) similarly contended that collaboration and a sense of purpose were requisite for organizational learning to occur. Furthermore, organizational learning was closely aligned to individual cognition and reflection. Kofman and Senge (1993) described effective organizational learning environments as “spaces for generative conversations and concerted action” where “people can talk from their hearts and connect with one another in the spirit of dialogue” (p. 16). Garvin (1993) contended that a learning organization can be both empowering and tranquilizing.

Teachers’ sense of efficacy played an underlying supporting role for the enhancement of professional community and organizational learning. Teachers who were more efficacious were more willing to participate in all aspects of organizational learning—collaboration, individual learning, and a sense of

vision—and they believed that their schools were more successful with SSIP. When teachers believe that they can make a difference and are interdependent, they work toward common goals. Consequently, implementation of school improvement initiatives is more likely to succeed.

The importance of teacher self-efficacy is clear from this study and others. Lee and Smith (1996) reported a strong positive link between teachers' sense of efficacy and valued student outcomes. Examining teachers' desire for participation in decision-making, Taylor et al. (1996) reported that sense of efficacy was the variable in their study that was most likely to discriminate between teachers. As well, teachers with the lowest self-efficacy reported less collegiality and communication with their colleagues.

Based on regression analyses, we concluded that the nature and quality of leadership behavior, the extent of collaboration, and the degree of staff involvement were strong determinants of the institutionalization of SSIP and school effectiveness. An environment that fosters collaborative cultures and teachers' collective engagement in sustained efforts to improve schools will be more successful in institutionalizing change.

Although we have images of excellence for schools, we do not have clear models of institutionalization. How can we transform ordinary schools into schools where excellence is institutionalized: places where renewal, growth, and reflection are integral to the culture? Why are some schools more effective in building a capacity for change than others? These are questions that continue to provoke the researchers' imagination.

We conclude that leadership and organizational learning are critical to school improvement. To lead school change successfully requires attention both to organizational goals and to professional relationships. The schools in this study that were most successful in institutionalizing change were those with dynamic, facilitative leadership and a professional community. The teachers and administrators in these schools were able to foster a collaborative culture for organizational learning where the climate for renewal was promoted from within. Organizational learning is both personal and group-oriented and operates most successfully where a shared vision and processes are in place to facilitate the realization of that vision.

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Research Notes: Guidelines

The *Note* should report briefly on the author's/authors' research-in-progress or recently completed research and should feature work that has not been reported elsewhere in journal publications. This current work should be situated, briefly, in the context of other pertinent scholarship, including the author's or authors' related research. The focus of the *Note* could be either a specific study or inquiry or an overview of an ongoing line of inquiry where fuller reporting of results will not occur in print for some time. The maximum length for a *Note* is 1,000 words (about 4 double-spaced pages in standard 12-point type), excluding references and one or two tables or graphs. To encourage communication between researchers, authors of *Research Notes* are asked to provide contact information such as e-mail, fax, and/or telephone numbers for publication with each *Note*. No abstract is required, but in all other respects the usual **ajer** guidelines for manuscripts should be observed.

Submissions to *Research Notes* will be reviewed for readability, clarity, organization, length, and adherence to all *Alberta Journal of Educational Research* (**ajer**) guidelines. Any submission that is judged to meet these criteria will be published as soon as possible to minimize the usual delays in moving submissions to publication. Any submission that is judged to require revisions according to the criteria outlined will not be published, as the *Notes* must have some currency if they are to serve the purposes identified.

Ben Levin
and
Jon Young
University of Manitoba

International Educational Reform: From Proposals to Results

Canadian provinces have not stood apart from efforts at large-scale educational reform, defined here as “programs of educational change that are government directed, initiated on an explicitly political analysis” (i.e., driven primarily by the political apparatus of government rather than by educators or professional bureaucrats), and justified on the basis of the need for a radical break with existing practice (Levin & Young, 1997), that have become widespread across the industrialized world in the last two decades (Organization for Economic Cooperation and Development [OECD], 1996). These reforms have come to command considerable attention in the educational literature of each jurisdiction (Gewirtz, Ball, & Bowe, 1995; Holmes, 1992; OECD, 1995; Plank & Boyd, 1994; Simkins, 1995) and to a lesser degree in the comparative literature across countries and jurisdictions (Carter & O’Neil, 1995; Dale & Ozga, 1993; Glatter, Woods, & Bagley, 1997; Whitty, 1997; Wylie, 1997). The research project described here, funded by the Social Sciences and Humanities Research Council for the period 1996-1999, is an attempt to build on and extend this comparative research by (a) locating specific Canadian experiences in this international literature, and (b) exploring how Canadian and international experiences have come to inform each other.

The object of this project is to study the purposes, antecedents, and consequences of large-scale (national, state, or provincial) educational reforms across several different jurisdictions and contexts—Alberta and Manitoba in Canada, parts of the United States of America (Minnesota and the national role in educational reform), England, and New Zealand. As a comparative analysis of educational politics and policy, the research will examine recent reform initiatives from inception to implementation with a focus on the following issues.

1. *Policy origins.* What reform proposals were initially proposed by governments? What were the sources of these reform proposals? Where did the ideas originate? What ideas and assumptions about educational reform were contained (explicitly and implicitly) in these proposals?
2. *Policy approval.* Which reforms were actually codified into law or regulation? How were these laws and regulations different from what was initially proposed? Why did changes occur?

Ben Levin can be reached at the Continuing Education Division, University of Manitoba, Winnipeg MB R3T 2N2; e-mail at ben_levin@umanitoba.ca.

Jon Young can be reached at the Department of Educational Administration, Foundations and Psychology, Faculty of Education, University of Manitoba, Winnipeg MB R3T 2N2; e-mail youngjc@umanitoba.ca.

3. *Policy implementation.* What steps were taken to implement the reforms? What “policy levers” were used in the implementation process and why?
4. *Policy effects.* What is known to this point on the effects of these reforms in each jurisdiction? What have been their effects on students and on their learning processes and outcomes in schools?

The time of study will vary from jurisdiction to jurisdiction. Although the definition of reform used in this study refers to “a radical break with existing practice,” the establishment of any starting point for educational reform has an element of arbitrariness to it. In England the study will begin with the 1986 and 1988 Education Reform Acts and in New Zealand with the 1987 Picot Commission. In Manitoba and Alberta the starting point will be educational reforms introduced in 1994, and in Minnesota it will be developments begun by the school choice movement of 1985-1987.

Sources used in the study will include primary materials and relevant legislative documents as well as the substantial body of secondary literature that already exists in most of these jurisdictions and interview transcripts (both those that we will conduct specifically for the study and others conducted for other research but accessible to us [Ribbens & Sherratt, 1997]).

Occurring as they have over a relatively short time and across a broad range of countries, with the appearance—at least on the surface—of containing many common features (focus, terminology, rationale), and during a period of rapid technological change and economic globalization, these developments have generated considerable interest and debate around the concept of “policy borrowing” (Halpin & Troyna, 1995). These debates center on an examination of the complex ways policy-makers are influenced by developments in other jurisdictions and how policies as a consequence migrate from location to location. As well, they are concerned with exploring the extent to which copying reforms from other countries without reference to the specific organizational, political, social, and educational traditions of each context is both possible and able to contribute to actual improvements in educational outcomes (Levin, 1996).

Our research is in its early stages with attention focused on the origins of reform and the role of ideology in the formulation of these policies in each jurisdiction (Levin & Young, 1997). These preliminary explorations serve to highlight the complexities of understanding policy development across jurisdictions. International developments and dominant discourses appear clearly important, but so too are national and local political traditions as well as more or less accidental circumstances and the predispositions of people in particular positions. The kind of comparative analysis we are undertaking in this project will, we hope, help us to think more clearly about how important policy issues develop.

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Mark J. Gierl
University of Alberta

Generalizability of Written-Response Scores for the Alberta Education English 30 Diploma Examination

Performance assessment plays an important role in the diploma examination program at Alberta Education. Students in grade 12, for example, complete two written-response assignments—a major and a minor writing task—on the English 30 diploma examination. These assignments are centrally scored by two markers on six different scales. The written response component accounts for 50% of the student's final diploma exam score. The appeal of performance assessment is obvious: It represents a real-life task that engages and interests students. However, this type of assessment also raises a number of technical questions. The purpose of this Research Note is to address one of many questions surrounding performance assessment, namely, the generalizability of written-response scores. Results from a generalizability study are presented using data from two written-response tasks on the English 30 diploma examinations administered by Alberta Education in 1996. The results are examined separately for the January and June administrations.

Generalizability Theory

Generalizability theory (G-Theory) is a statistical theory about the dependability of behavioral measures (Brennan, 1992; Shavelson & Webb, 1991). It allows the researcher to identify and evaluate how different variables or facets influence measurement. It also permits the researcher to generalize from a student's observed score on a test to the student's universe score (i.e., the score the student would be expected to receive after repeated testing). With G-Theory multiple sources of error can be estimated and evaluated in a single analysis. It allows the researcher to estimate, for example, how many markers, tasks, or scales are needed to obtain a reliable written-response score. G-Theory also provides a measure of dependability that is comparable to a reliability coefficient in classical test theory.

Results

A crossed design was used to examine the effects of Person (P), Marker (M), and Scale (S) on the generalizability of the written-response scores in English 30.¹ Written-response data were analyzed using scale scores from 78 students who wrote the January 1996 exam and from 100 students who wrote the June 1996 exam. Two independent markers assessed a minor assignment using two scales (thought and detail and writing skills) and a major assignment using four scales (thought and detail, organization, matters of choice, and matters of

Mark Gierl is an assistant professor in the Centre for Research in Applied Measurement and Evaluation, Faculty of Education. His research interests include assessment and cognition, item response theory, and program evaluation. He can be contacted by e-mail (mgierl@gpu.srv.ualberta.ca) or by mail at CRAME, 3-104 Education Centre North, Faculty of Education, University of Alberta, Edmonton AB T6G 2G5.

correctness, see the 1995-1996 English 30 Information Bulletin for more details on the writing assignments). The scales ranged from a low of 1 (indicating poor performance) to a high of 5 (indicating excellent performance). The results are presented in Table 1. The main effects and interactions for the Person, Marker, and Scale facets reflect the magnitude of error in generalizing from a student's score on a single scale to his or her universe score. Large variance components are associated with erroneous generalizations. Test developers strive to attain small error variances in those facets under their control (e.g., markers and scales). The percent total column reveals how much of the variance can be attributed to each facet.

The largest variance component was attributed to persons. Student variability was the single largest source of measurement error because students' written-response scores differed in this sample. The variability attributed to markers and scales, on the other hand, was small indicating that, overall, markers were consistent with one another and that scores on the scales for the major and minor assignments, respectively, were similar. The largest interaction was attributed to the student-by-marker facet (i.e., $P \times M$ in Table 1) suggesting that students' scores differed as a function of marker. The person-by-marker facet also varied by task, as the minor assignment produced larger variance components compared with the major assignment. Alternatively, the person-by-scale and the marker-by-scale interactions were small, indicating that students' performances were comparable across the two assignments in January and June and that markers awarded similar scores across the two assignments in January and June. The final variance component was a person-by-marker-by-scale facet, which served as the error term. This interaction included all sources of variability that influence students' performances (i.e., Person, Marker, and Scale) as well as those sources not accounted for in the analysis. The error component was relatively small, indicating that the three facets accounted for much of the variability in this analysis.

Table 1
Estimated Variance Components for the Generalizability Study as a Function
of Administration Date and Task

	January 1996 (n=78)				June 1996 (n=100)			
	Minor Assignment	%	Major Assignment	%	Minor Assignment	%	Major Assignment	%
Facet								
Person (P)	0.56	0.59	0.57	0.68	0.42	0.59	0.47	0.56
Marker (M)	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Scale (S)	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
P x M	0.10	0.11	0.03	0.04	0.11	0.16	0.05	0.06
P x S	0.06	0.06	0.04	0.05	0.04	0.06	0.03	0.03
M x S	0.02	0.02	0.00	0.00	0.01	0.01	0.01	0.01
P x M x S, e	0.17	0.18	0.19	0.23	0.12	0.17	0.17	0.20

Note. The three-way interaction is the error term in this generalizability study. It cannot be meaningfully interpreted because it includes sources of error that were not analyzed in this study.

G-Theory also allows the researcher to forecast reliability given a specific target of dependability in the measurements. In the present study the marker facet was increased from 1 to 5 to determine whether more markers would affect the dependability of students' written-response scores. As shown in Figure 1, the dependability coefficient increased as the number of markers increased, with the most gain occurring between a one and two marker system. There was little appreciable gain in the dependability coefficient beyond two markers. In addition, scores from the major task were consistently more reliable than scores from the minor task as the number of markers was increased.

Conclusions

The results of this generalizability study support three general conclusions. First, the person-by-marker facet produced a large interaction term suggesting that students' scores differed as a function of marker. However, this variance component was relatively small across the two tasks and two administrations, indicating that it contributed little to the error in measurement. Second, the generalizability of the written-response scores was high using a two-marker system. In fact, the dependability coefficient would not be enhanced appreciably by moving beyond two markers relative to the anticipated costs (i.e., costs increase as the numbers of markers increase). Third, scale variability was not an important source of measurement error. Although the major assignment yielded more reliable results than the minor assignment, the written-response scales for both tasks worked well as the scale main effect and the person-by-scale and marker-by-scale interactions contributed little error to the generalizability of the written-response scores.

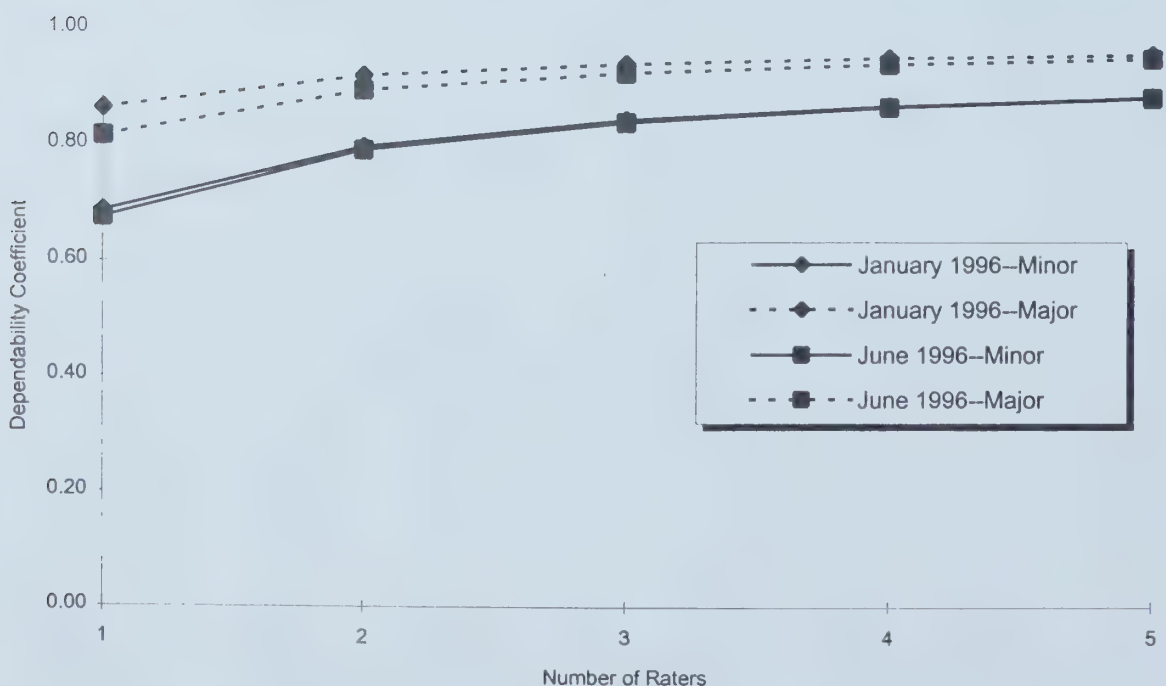


Figure 1. Dependability coefficients for absolute decisions as a function of rater.

Note

1. The design was crossed but not completely, as all persons responded to the same tasks, and the responses of all persons to all tasks were evaluated by the same first marker. Thirty different second markers were used in the January 1996 analysis and 54 different second markers were used in the June 1996 analysis.

Acknowledgments

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Robert H. Cantwell

and

Phillip J. Moore

University of Newcastle, New South Wales

Relationships Among Control Beliefs, Approaches to Learning, and the Academic Performance of Final-Year Nurses

Over recent years a number of researchers have examined different aspects of the ways students typically engage learning. These studies have included investigations of epistemological beliefs (Schommer, 1993), motivational goals (Archer, 1994), attributional beliefs (Chan, 1994), approaches to learning (Cantwell & Millard, 1994; Moore, 1995), and self-regulatory beliefs (Cantwell & Moore, 1996; Winne, 1995). A number of researchers have further suggested that such dispositions may be systematically interrelated (Corno, 1993; Pintrich & Schrauben, 1992; Snow, 1989), although the precise nature of the interrelationships has not received a great deal of empirical attention (Bouffard, Boisvert, Vezeau, & Larouche, 1995). In this brief article we report on a study that investigates potential relationships between two particular sets of dispositions (approaches to learning, Biggs, 1987a) and self-regulatory control (Cantwell & Moore, 1996) and compare their role in explaining the academic performance of university students.

There is little doubt that successful learning in universities involves both a preparedness to approach and engage complex learning tasks, and a preparedness to develop independent learning skills appropriate to meeting the demands of complex learning. Biggs (1987a, 1993) has suggested that the way students approach learning will reflect an amalgam of intentions and strategies that establish parameters for engaging learning tasks. A "deep" student, for example, with an intention of understanding material presented in a course is more likely to engage learning in a fundamentally different way than a "surface" student whose intentions are driven by more extrinsic goals such as accreditation and avoidance of failure (Cantwell & Millard, 1994). At the same time, an intention to understand course material at a deeper level also imposes a much greater self-regulatory load on learning than is likely to be the case where the treatment of material to be learned is addressed in a more superficial manner. Developing complex meaning necessarily requires the activation and use of a greater array of cognitive strategies. It is likely, then, that students reporting deeper intentions in learning should not only draw on a greater array

Robert Cantwell is a lecturer in educational psychology. His research interests include student beliefs about learning and knowledge and learning in the content areas at university level.

Phillip Moore is an associate professor in educational psychology. His research interests include student learning, understanding text and spatial information, and applications of learning theory to workplace learning. He can be reached at the Faculty of Education, University of Newcastle, NSW Australia, 2308; e-mail verhc@cc.newcastle.edu.au.

of strategies, but could be reasonably expected to be more cognizant of the strategic demands of complex learning and display a greater sensitivity to the need to control and orchestrate strategy use if successful learning is to occur.

In a recent study we reported on the development of a self-report measure indicating ways university students react to complex strategic demands in learning (Cantwell & Moore, 1996). We found that students reported responding to complexity in three ways: adaptively, by adjusting their study methods to accord with task requirements; inflexibly, by persisting with habitual strategies regardless of the degree of their task appropriateness; and irresolutely, by reporting extreme difficulty in conceptualizing strategic options in the face of changing strategic demands. Students reporting adaptive self-regulatory control behaviors tended to have more successful academic outcomes, whereas those reporting inflexible or irresolute control behaviors tended to have less successful academic outcomes (see also Archer, Bourke, & Cantwell, 1996, Archer, Cantwell, & Bourke, 1997).

There are strong theoretical grounds for suggesting that students who report using a deeper approach to learning should also report a conception of self-regulation that acknowledges the need to control complex content and strategy choices flexibly. That is, a deep learner should also indicate adaptive control behaviors. Similarly, a student consciously attending to the institutional demands imposed by a course—typical of students scoring highly on Biggs' "achieving" scale—may also be expected to adjust learning behaviors flexibly to those congruent with the demands of the course. On the other hand, the more limited learning goals and strategy choices associated with the surface approach are more likely to be linked to less functional control behaviors. For example, a reliance on rote learning as a "surface strategy" may reflect an inflexible conception of strategy orchestration and control—the need for adaptive change is not acknowledged by such learners. At the same time, the inappropriateness of such restricted strategies would also suggest that these students may experience uncertainty in conceptualizing alternative strategic models where such change is clearly mandated by the tasks undertaken. We may expect, then, a strong association between surface learning and both inflexible and irresolute control behaviors.

Method

The participants were 207 final-year Diploma of Nursing students from an Australian university. Mean age of the group was 22.7 years ($sd=5.41$), with an age range of 19 to 48 years. There were 172 females and 35 males.

Materials and procedures. Biggs' (1987b) Study Process Questionnaire (SPQ) and Cantwell and Moore's (1996) Strategic Flexibility Questionnaire (SFQ) were administered to participating students in normal lecture time. Measures of academic learning included final grades awarded in five courses completed by the students in their final year (Nursing Practice, Health Studies, Anatomy and Physiology, Psychosocial Studies, and Professional Studies). Academic grades were obtained with student permission from university records. In addition, an overall grade point average (GPA) was calculated from the mean of the five courses.

Results

The relationships between the SFQ scales and SPQ scales were assessed by zero-order correlations. Adaptive control was correlated with both the deep ($r=.60$) and achieving ($r=.38$) approaches to learning. Inflexible control was correlated with a surface approach to learning ($r=.37$). Irresolute control was associated with the surface approach ($r=.36$) and the achieving approach ($r=-.17$). There were no other significant relationships between individual SPQ and SFQ scales.

The relationships between approaches to learning, self-regulatory control and academic performance were also assessed by zero-order correlations. Significant positive correlations with academic learning were evident for a deep approach in relation to anatomy and physiology ($r=.15$), psychosocial studies ($r=.17$), and GPA ($r=.14$) and an achieving approach in relation to anatomy and physiology ($r=.17$), psychosocial studies ($r=.18$), and GPA ($r=.17$). Surface learning was unrelated to academic performance. Irresolute control was significantly negatively related to performance in all courses (nursing practice, $r=-.27$; health studies, $r=-.23$; anatomy and physiology, $r=-.25$; psychosocial studies, $r=-.19$; professional studies, $r=-.21$) as well as overall GPA ($r=-.29$). Neither adaptive control nor inflexible control were related to academic performance. These analyses are summarized in Table 1.

Discussion

The study had two aims: to investigate the relationships between reported approaches to learning and reported self-regulatory control behaviors; and to compare the role of these reported dispositions in explaining the learning outcomes of university students. In relation to the first question, there were clear, theoretically consistent associations between individual SPQ and SFQ scales. The link between a deep approach and adaptive control was strongest, confirming our position that complex learning involves not only the awareness of a broad strategy array, but also the awareness of the need to deploy flexibly such strategies in task-appropriate ways. The link between adaptive control and an achieving approach was also confirmed. Similarly, the predicted links between a surface approach and both inflexible and irresolute control were also confirmed. The results, however, were less supportive of our predictions in relation to academic performance. Neither the SPQ nor the SFQ scales corre-

Table 1

	GPA	Nursing Practice	Health Studies	Anatomy & Physiology	Psychosocial Studies	Professional Studies
Surface Approach	-.12	-.12	-.12	-.09	-.09	-.05
Deep Approach	.14*	.10	.11	.15*	.17*	.04
Achieving Approach	.17**	.12	.10	.17	.18	.11
Adaptive Control	.10	.02	.11	.07	.10	.09
Inflexible Control	-.09	-.05	-.08	-.01	-.09	-.11
Irresolute Control	-.29***	-.27***	-.23***	-.25***	-.19**	-.21**

* $p<.05$; ** $p<.01$ *** $p<.001$.

lated strongly with academic performance. Given the associations evident in the literature relating to both dispositions (Cantwell, 1998; Cantwell & Moore, 1996 in relation to the SFQ and Cholowski & Chan, 1992; Moore, 1995 in relation to the SPQ), these results were surprising. The correlations were generally quite weak, with only the irresolute scale providing consistent significant associations with performance. It may well be the case in this instance that aspects of the course itself may have come into play. Certainly Meyer and Dunne (1991) and Higgins (1989) have both pointed to the existence of reasonably powerful concrete and clinically oriented cultures in many nursing faculties that tend to militate against deeper learning tasks and outcomes. It is not possible in the current study to quantify this kind of effect. However, the consistent negative relationship between irresolute control and performance in this group may suggest that independently of the relative depth of learning tasks, those students who perceive self-regulatory control processes to be problematic appear to be significantly disadvantaged in learning.

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Barbara J. Virley O'Connor

University of Ottawa

and

Richard Walsh-Bowers

Wilfrid Laurier University

A Preliminary Examination of the Effects of Gender-Biased Language on Children's Imagery

Over the past two decades, considerable research has supported the idea that using masculine terms (e.g., *he*, *man*) to refer to both genders leads to a male bias in imagery. Studies with adults have consistently shown that terms such as *man* and *he* even when intended to produce gender-neutral images do not do so (Gastil, 1990; Miller, 1986; Miller & Swift, 1991; Rubin & Greene, 1991; Switzer, 1990). Noticeably lacking from this body of literature, however, is work done with children (Fisk, 1985; Switzer, 1990) despite the fact that they have a more literal interpretation than adults of verbal materials (Stericker, 1981).

One researcher to investigate the effects of gender-biased language on children's imagery is Hyde (1984), who asked participants in grades 1, 2, and 5 to rate how well women and men could do: (a) several traditional jobs; and (b) a fictitious, gender-neutral "wudgemaker" occupation. Pronouns used by Hyde in the description of the wudgemaker were varied. Ratings of women as wudgemakers were lowest when the interviewer read *he* in the job description to the child. Hyde proposed that using gender-related pronouns affects the concepts children form of an occupation, and particularly their ideas of how well women could do the occupation. She also considered the children's knowledge of the convention of using *he* to refer to an unknown person by asking the students what *he* in a generic sentence meant. Understanding of the rule increased with age: 28% of participants in grade 1, 32% in grade 3, and 42% in grade 5 gave responses indicating they knew the "rule."

The purpose of our study was to generate preliminary hypotheses about the contemporary implications of using gender-biased language with child volunteers. Although conceptually similar, our study differed from Hyde's (1984) in three ways: (a) we added a self-referential component to examine the effect of a male-biased term on the personal expectations of girls; (b) we described a task to the children that was directly related to their school experience; and (c) we qualitatively analyzed the children's responses.

Twenty-four grades 5 and 6 students participated; however, because of difficulty in obtaining participants, an unequal number of girls ($n=16$) and boys ($n=8$) were randomly assigned to each of four groups. An interviewer (the first

This study is based on a fourth-year honors psychology thesis that Barbara Virley O'Connor completed under Richard Walsh-Bowers' supervision. She is currently a doctoral candidate in clinical psychology at the University of Ottawa and may be reached c/o The School of Psychology, University of Ottawa, Ottawa ON K1N 6N5; e-mail: boconnor@uottawa.ca. Richard Walsh-Bowers is a professor of psychology at Wilfrid Laurier University, Waterloo ON N2L 3C5.

author) read each child a brief “reading helper” job description (see Appendix A) that was identical, except that one quarter of the children heard the pronoun *he*, one quarter heard *she*, one quarter heard *they*, and one quarter heard *he or she*. Then the interviewer asked each child to orally respond to the following questions:

1. How well do you think you could do this job? Why?
2. How well do you think a boy could do this job? Why?
3. How well do you think a girl could do this job? Why?
4. Is there any difference in the way a boy and girl could do this job? Why?

Following Hyde’s design, the interviewer also assessed each child’s understanding of the convention of using *he* as a gender-neutral pronoun by asking him or her to respond to these questions:

When you use *he* in a sentence, what does it mean? For example, if I say, “When a kid goes to school, he often feels excited on the first day,” does that mean the kid is a boy, or does it mean it’s a girl, or could it be either a boy or a girl? Why?

The children’s responses were audiorecorded and transcribed for qualitative analysis. Following this we systematically assigned codes to identifiable ideas expressed in each question and then compared and contrasted the codes according to gender and pronoun group (Lincoln & Guba, 1985).

Overall, analyses suggested little support for the idea that using *he* in the reading helper advertisement lowered girls’ expectations for success. Although they expressed more uncertainty about their personal ability than girls in the other conditions, the girls in the *he* condition did not see themselves as unable to do the reading helper job. Similarly, little support was found for the idea that using generic *he* in the job advertisement lowered boys’ and girls’ expectations of how well girls could do the job. Any differences in the children’s expectations about themselves and others due to group membership were outweighed by consistent, positive expectations.

This lack of preliminary support for Hyde’s conclusions may be related to the nature of the task that we presented to the children. In saying things such as, “girls spend more time reading,” and “boys might not be as interested in the job,” several children indicated that the reading helper task may have been biased in favor of girls. Nevertheless, we felt it was important to design a task the children could relate to rather than presenting them with a fictitious adult job that was completely removed from their daily experience. Indeed, the challenge facing our future work in this area is to design an investigative procedure for children that is neither inherently biased nor outside the realm of childhood experience.

Like Hyde (1984), we found that one half of the children realized that the pronoun *he* in the generic sentence represented either gender. However, Hyde deduced that a child fully understood this convention based solely on the child’s *either* response. In contrast, we explored the children’s knowledge of *he* as generic convention by asking them to tell us *why and how* they knew that the person in the sentence was either gender. Only two of our participants demonstrated an understanding of the convention; most could not explain *why* they knew the person could have been either gender. Some children concluded that

the person was either gender based on the contextual information provided. They reasoned, for example, that "anyone can be excited on the first day of school." Thus our preliminary findings in conjunction with Hyde's suggest that roughly one half of elementary school children do not understand the practice of using *he* to refer to both sexes. However, the qualitative nature of our analysis seems to render Hyde's conclusions tentative given the limited potential of a single response to represent a child's true understanding.

Ideally, future study will incorporate *both* qualitative and quantitative measures for a more thorough picture of the effects of gender-biased language on children's thought processes. Likewise, replication between and within different school boards (including more ethnic and socioeconomic diversity) will be imperative, because the present analysis was designed to generate hypotheses only and was therefore limited. Finally, alternating individuals of each gender who present information to the children and developing a manipulation check to ascertain the participants' suspicions about the study would be important.

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Appendix A

Description of Reading Helper Task

WANTED: READING HELPER

A new reading program is being started at your school, and helpers in grades 5 and 6 are needed. The helper must be willing to give *her* (*his; his or her; their*) time for at least two hours every week. *She* (*he; he or she; they*) will be asked to spend an hour with a grade 1 student every Monday and Friday afternoon. *She* (*he; he or she; they*) will help the younger student visit the library and choose reading books. In addition, *she* (*he; he or she; they*) will spend time reading with the younger student, and talking about the books they read together. The helper does not need to have excellent reading skills, but it is important that *she* (*he; he or she; they*) is responsible and that *she* (*he; he or she; they*) enjoys helping others.

*Nina Howe
Bette Chambers
and
Philip C. Abrami
Concordia University*

The Effects of an Academic Restructuring Program on Parental Attitudes and Behaviors

School dropout is a major social problem in Quebec. Approximately one third of adolescents fail to complete high school, and they also experience problems of delinquency, substance abuse, and poor employment (Hrimech, Théoret, Hardy, & Gariépy, 1993). By grade 3 it is possible to predict with fair accuracy children who are at risk for school dropout (Howard & Anderson, 1978). Typically such children are from lower socioeconomic families, and many perform more poorly than middle-class children on kindergarten entry. In addition, the parents of at-risk children frequently have low expectations for their youngster's academic success, which has also been associated with poor school success (Alexander & Entwisle, 1988; Gill & Reynolds, 1996). Many low SES parents are not involved in the life of the school (e.g., volunteering, attending meetings, participating in home-school associations) or do not engage in behaviors associated with greater academic success such as supervising homework or encouraging reading (Cormer, 1988).

Greater parental involvement has been positively associated with children's academic performance and more positive attitudes toward school (Herman & Yeh, 1983; Klimes-Dougan, Lopez, Nelson, & Adelman, 1992; Leung, 1993; Phillips, 1992). In fact early intervention programs have been effective in creating positive and successful school experiences for children (Barnett, 1996; Berrueta-Clements, Schweinhart, Barnett, Epstein, & Weikart, 1984) and promoting parent involvement (Cormer, 1988). Cormer and Haynes (1991) argue three mechanisms can increase parental involvement: (a) a school planning and management team of parents, teachers, administrators, professional (social workers), and nonprofessional (custodian) support staff; (b) a mental health team concerned with the children's behavioral and developmental needs; and (c) a parents' program for developing children's social and academic abilities.

Given the above literature we examined the impact of an innovative school restructuring program called an Ounce of Prevention in Schools (OOPS), on parental attitudes, expectations, and behavior regarding school involvement. The Family Support Team was a key component of this intervention program, which was designed to increase academic success for disadvantaged school-aged children (based on Success For All, Slavin, Madden, Karweit, Dolan, &

Correspondence should be addressed to Nina Howe, Department of Education, Concordia University, 1455 de Maisonneuve West, Montreal, QC H3G 1M8; e-mail: nhowe@vax2.concordia.ca.

Wasik, 1992). We hypothesized that parents of children attending the experimental program would develop more positive attitudes, higher expectations, and be more involved in school than control parents. This study is part of a larger project that has demonstrated significant improvement in experimental children's reading achievement compared with control students (Chambers, Abrami, Massue, & Morrison, 1997).

Ounce of Prevention in Schools (OOPS). The program involves restructuring schooling for at-risk students and providing family support to avoid academic failure. The foundation of the program is prevention and immediate, intensive intervention from kindergarten to grade 6. The program includes several elements: (a) a half-day kindergarten provides balanced, developmentally appropriate learning experiences with a strong emphasis on a print- and literature-rich environment (Bredekamp, 1987); (b) students are regrouped across grade levels into small (15 children) homogeneous groups for reading instruction, which includes two elements that have been effective in improving student's reading performance: (a) an eclectic approach that includes direct instruction in phonics (Brown, Pressley, Van Meter, & Schuter, 1996), and (b) instruction via cooperative learning (Abrami et al., 1995); (c) there are eight-week reading assessments, and children are regrouped if necessary according to current functioning, while students requiring individualized tutoring are identified; (d) for struggling students, one-to-one remedial tutoring for 20 minutes a day for eight weeks is provided (Wasik & Slavin, 1993); (e) the Family Support Team employs a systematic approach to increase parental involvement and assistance with their children's school work. This team (i.e., school principal, classroom teacher, reading teacher, program facilitator, school nurse, social worker) focuses on four components: (a) attendance program, or determining the reasons for absence and encouraging regular attendance; (b) school-based intervention by providing remedial help or counseling for a troubled child; (c) parent involvement, for example, requesting that parents listen to their children read orally on a daily basis, encouraging parent volunteers, organizing coffee sessions where teachers model effective reading techniques (Books and Breakfast); (d) service integration of community resources by involving social workers or community health workers as needed.

Participants and procedures. Parents, primarily mothers, of kindergarten and grades 5-6 children attending the experimental and three, highly similar control schools participated before and after the implementation of the OOPS project (30 experimental, 38 control parents). Families were mostly white, English-speaking, and from low SES backgrounds (based on classification as inner-city schools by the Ministry of Education). Forty percent of experimental schoolchildren were officially classified as special needs, based on Ministry of Education codes. Kindergarten and grades 5-6 parents were selected, because the OOPS program was introduced for the first time at these grade levels. Parents interviewed by telephone in September and June were asked 15 questions on four topics: (a) one question on parental involvement in homework (e.g., "Do you expect to help your child with homework?"); (b) three questions on the importance of involvement (e.g., "How important is it to you to be involved with your child's school work?"); (c) eight questions on current

experiences with schooling (e.g., "How often do you expect to attend school programs?"); and (d) three questions on expectations for child's school success (e.g., "How well do you expect your child to do in reading?"). Questions for the last three topics employed a 3-point response scale (1=not at all, 2=somewhat, 3=very much).

Findings and implications. Questions about (a) the importance of involvement, (b) current experiences, and (c) expectations were summed to obtain three subscale scores. Analysis of covariance was conducted on posttest scores with children's average age and pretest subscale scores employed as covariates. Children's achievement (PPVT, reading level) were also controlled for in the analyses. Results were: (a) *Help with homework*: At posttest, experimental parents reported helping their children more with school work than control parents, $F(1, 59) = 4.14, p < .05$ (adjusted means = .90, .67 respectively); (b) *Importance of involvement*: No significant differences were evident between the experimental and control parents at posttest on attitudes regarding the importance of school involvement, $F(1, 59) = .16, ns$ (adjusted means = 2.94, 2.95 respectively); (c) *Current experiences*: At posttest, there were no significant differences between the experimental and control parents on current experiences with school, $F(1, 59) = .08, ns$ (adjusted means = 2.39, 2.41 respectively); (d) *Expectations for success*: At posttest, experimental parents reported lower expectations for their children's academic performance than control parents, $F(1, 59) = 4.2, p < .05$ (adjusted means = 2.36, 2.56 respectively).

Overall, the OOPS program had a small but important impact on the behavior of the parents of experimental children. Specifically, experimental parents reported helping their children significantly more with homework than control parents, which may be an indication that the parents were more involved and meeting one of the basic requirements of the OOPS program (i.e., listening to oral reading for 20 minutes per night). We expect such involvement will continue and over time and manifest itself in other forms (e.g., higher expectations for their children's success, greater presence in the school). Nevertheless, OOPS parents had lower expectations for their children's academic achievement after one year of implementation compared with control parents. Given the high percentage of special needs children in the experimental school, these parents may have been realistic in their expectations concerning their children's academic progress. The attitudes of experimental parents concerning the importance of education were not influenced by the intervention program. The high scores of all parents indicated a ceiling effect, and parents apparently had already placed high value on the importance of education. In addition, the measure may not have been sensitive enough to detect actual differences in the attitudes of experimental and control parents.

Unfortunately, the Family Support Team was organized some months after the introduction of the OOPS program. Initial focus was on the proper implementation of the reading program and only later was energy devoted to establishing this Team. Perhaps after a second year, differences in parent-home experiences may be apparent. However, one important consideration is that all the children were bussed to the experimental school, which may have created barriers for parents wanting to become more involved. In addition, the ex-

perimental school was located in an upper middle-class neighborhood some distance from the area of the city where the families lived and was not quickly reached by public transportation. Certainly these are important issues for the Family Support Team to address and it will have to work hard and creatively to overcome these barriers. Nevertheless, the fact that the experimental parents reported greater involvement with their children's homework suggests that initial expectations regarding increased parental involvement and concern are occurring through the OOPS program.

Note

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Karen Cockrell

Dan Cockrell

University of Missouri-Columbia

and

Edward L. Harris

Oklahoma State University

Generational Variability in the Understanding and Use of Technology

Every generation is distinguished by a set of defining characteristics, values systems, and lifestyles (Mills, 1987). The Baby Boom and Generation X cohorts are similarly separated by the different social contexts in which they came of age (Boyer, 1987; Lyons, 1994; Strauss & Howe, 1991). These contextual differences are further distanced by revolutionary changes in electronic communication technologies.

Exploring the cultural borders between Baby Boomers and Generation Xers, this article examines generational experiences with and relationships to electronic communication technologies as critical elements of culturally framed ways of understanding the world (McLuhan, 1967). The study is guided by the following question: How do Generation X members of a teacher preparation cohort perceive their relationship to electronic communication technology? A secondary question focuses on how the Generation X students' perceptions differ from the attitudes that their instructors probably have if they are Boomers. Assumptions about Boomers are drawn from the literature on that generation.

Shaped by radically different normative values and sociological conditions, the experiences of Baby Boomers differ appreciably from those of Generation Xers (Hayes, 1993). These differences are complicated by the advent and rapid proliferation of electronic communication technology and an esoteric new computer-culture language (Turkle & Papert, 1990). Most Boomers have developed computer literacy skills situated in employment requirements, professional needs, or personal interests (Reske, 1995); many Generation Xers have been deeply imprinted by a lifelong experimentation with and manipulation of communication technologies. Although significant differences exist within as well as across cohorts, the experience of Boomers and Xers may differ so radically that they do not share "basic assumptions about the world" (Ritchie, 1995, p. 12). This could have significant implications for teaching-learning

Karen Cockrell is an assistant professor in the Department of Educational Leadership and Policy Analysis. Her research interests include school and community relationships, school change, and American Indian education. She can be reached by telephone at (573) 882-8548; fax (573) 884-5714; e-mail elpakc@showme.missouri.edu.

Dan Cockrell is an instructor in the State-wide EdD Educational Leadership Cooperative and coordinates a team for teacher education.

Edward Harris is Associate Dean for Academic Affairs and Director of Educational Research for the College of Education.

environments where the teachers are largely Boomers and the students are largely Xers.

Methods

Teacher preparation students enrolled in a 1995 fall semester Foundations of Education course required at a large midwestern Research I university were invited to participate in the study. Ninety-one volunteered to participate. Primarily juniors and seniors, all of the students were members of Generation X and represented the mid-range of their generational cohort. Seventy-five percent of the participating students were females between ages 20-25 years and 25% were males between 20-27 years of age.

Consistent with naturalistic design, data were collected from multiple sources (Lincoln & Guba, 1985) including an open-ended questionnaire, informal interviews, and instructor's observation notes. The constant comparative method of analysis (Strauss, 1987) was used to understand and derive meaning from connections among the data. Patterns identified through linkages among the coded and categorized data were then organized into broad, inductively derived, descriptive themes.

Findings

Learning: Transition from novice to expert. The venues where Boomers and Generation Xers developed computer literacy skills and made transitions from novice to expert users differ dramatically. The evidence suggests that Boomers and Xers first experienced computer technologies at different stages of life, the former as adults and the latter as children. Many of the Generation X students in our study were introduced to programming as elementary students and refined their computer literacy skills throughout their school experience. In addition, most Xers were surrounded by the computer culture through video games and involvement in the work world. On the other hand, the literature indicates that some Boomers acquired literacy skills in formal classroom settings. Most acquired skills through professional development seminars, brief training sessions, informal tutorials, or manuals.

Information: Navigating with map and compass. For both Boomers and Generation Xers, television and radio represent primary tools for navigating myriad layers of information. Yet Boomers and Xers differ in other preferred information sources. Boomers depend more on newspapers for information than Generation Xers (Reske, 1995), whereas Xers access information through computer technology more than Boomers. One student in our study observed that through computer use she can "go anywhere in the world and learn about anything."

Boomers and Generation Xers rely on electronic communication technologies for information useful in traversing their public and private worlds. Although they may use the same tools to access information, Boomers and Xers process information in different ways. Generation Xers' immersion in the video games culture has significantly influenced their perception of the relationship between the individual and media technology (Provenzo, 1991). Through their interactive relationship with communication technologies and simultaneous access to multiple sources of information, Xers demonstrate an ability to con-

centrate on several sources of information concurrently and to process information quickly (Filipczak, 1994). For example, some students described multiple uses of computers including creation, reception, retrieval, and transmission of information.

Time: Charting the course. Many Generation X students believe communication technologies, particularly computers, make their lives easier and more time efficient. Our study respondents indicated that the ubiquity of communication technology affects their lives fundamentally and wholly. One student observed, "It is a way of life." Some students remarked that the usefulness of electronic communication technology lies in the time efficiency it offers in a fast-paced society.

Unlike Generation X students, for whom computer technology such as on-screen editing conserves time in preparing assignments, the literature suggests that some Boomers view computer and communication technologies as time-intensive. For these Boomers, electronic communication technologies represent a complicating work factor that lengthens tasks and delays completion of projects. Whether enthusiastic or reluctant sojourners in the computer culture, Boomers may require more time investment than do Generation Xers in developing computer literacy skills. That time investment, coupled with their educational introduction to this technology as adults, may account for a more critical perspective held by many Boomers regarding the efficiency of communication technologies.

Change: Adapting to new terrain. Through their accommodation of social change (Holtz, 1995; Ritchie, 1995) and their development of parallel thinking abilities (Filipczak, 1994), Xers may accommodate technological change with greater ease than Boomers. In our study, however, some Xers expressed disquiet about the rapidity of change. An opinion expressed by one male student, "It can be argued whether technology has made life harder or simpler," was echoed by a female student, "Although technology would seem to make life easier, I almost think it may cause more confusion and chaos." Stated succinctly by another student, "Technology is changing every day and it is very hard to keep up."

Generational experience in types and rates of change vary. Although many Boomers and Generation Xers share a concern for change, this concern differs in degree and, perhaps, in kind. Among some Boomers, a difficulty in accommodating change centers around a need to acquire computer literacy skills in a maelstrom of change. The disquiet expressed by some Xers appears to be focused on the rate of technological change and a concern for keeping up.

Implications for Practice

Cultural borders can impede teaching and learning. Awareness and instructional accommodation may reduce borders imposed by differences in understanding, use, and relationship to computer technology between Boomer instructors and Generation X students.

The findings of this study suggest several implications for practice. Instructors should (a) present complex problems that require applying computer knowledge and processing multiple pieces of information through a Problems Based Learning (PBL) format; (b) organize students into small work teams for

collaborative problem solving; (c) negotiate timelines for completion of tasks within set parameters; (d) maintain awareness of some Generation X students' concerns and needs for technology knowledge and skill building.

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Book Review

Interpreting Teacher Practice ... Two Continuing Stories. Renate Schulz. New York: Teachers College Press, 1997, 147 pages.

Reviewed by *Hans Smits*

What, we might wonder, is the grand narrative behind the compulsive appeal of little stories? (Simpson, 1995, p. 29)

Whether in the popular media or in academic writing, we seem to be living in an age of stories. As writers and readers of educational research we might legitimately wonder what is revealed or not by the proliferation of the narrative form and what it means to engage in narrative research.

There are also questions about the meanings that may be derived from narratives, and whether narrative is as inclusive of the complexity of lived experiences as might be assumed. For example, Simpson (1995) asks whether narratives are a form of "half-knowledge," which ignore or omit broader, contextual issues (p. 17). And there may be questions, as Simpson suggests, about whether in some cases "little stories" really reintroduce or reaffirm "master narratives" rather than counter them. Such questions are certainly raised—although not all of them explicitly—by Renate Schulz's book *Interpreting Teacher Practice ... Two Continuing Stories*.

Schulz's work provides an example of what many writers have noted: that the turn to narrative is valuable and necessary as an antidote to the overrationalized qualities of modern life whereby "scientific practice created a sphere in which the dark and joyous forces of enchantment and meaning were banished, stilled" (Rabinow, 1996, p. 184). Feelings of disenchantment arose historically as a consequence, at least in part, of the application of scientific rationality to human practices and understanding. Technical rational approaches, it has been argued, did not foster more grounded understandings of particularly embodied and culturally specific aspects of educational practice.

Narrative forms of writing have thus responded to a desire for constructing fuller understandings of teaching practice, as is Schulz's stated intention in her study. As she demonstrates, narratives can provide a structure through which important understandings can be both communicated and in turn interpreted through reading in ways that abstracted conceptual or theoretical knowledge does not encourage or allow.

Moreover, Schulz reminds us of the deeply collaborative quality of narrative research. As she emphasizes through citing Noddings, for too long educational research has focused on research *on* teaching rather than *for* teaching. Thus researchers ought to establish relationships with those whose lives both provide stories for telling and challenge the institutionalized separation between theory and practice.

Hans Smits is an assistant professor in the Faculty of Education at the University of Regina where he works in the areas of social studies curriculum, teacher education, and action research.

However, the practice of narrative research is not immune to issues of representation, validity, and ethics. Determining the truth of narrative as written text is slippery indeed. As Schulz admits, the researcher may attempt to assume “interpretive authority,” but does so at the risk of ignoring the collaboration necessary in the writing of stories and denying possibilities readers may provide in giving further meaning to research.

Freed from the context of actual observations and conversations, the narrative as written text proffers different readings and meanings, even for those whom the text nominally represents, as Schulz discovered. In his studies of interpretation and textuality, Ricoeur (1981) has emphasized the challenges in making the transition from an “oral situation” to the production of written text and its subsequent readings:

The emancipation of the text from the oral situation entails a veritable upheaval in the relations between language and the world, as well as in the relation between language and the various subjectivities concerned (that of the author and that of the reader). (p. 147)

Schulz’s story indeed confirms an “upheaval in the relations between language and the world” when the meaning and truthfulness of her narratives are contested through the particular readings they receive. The original intentions of the researcher and the subject of research failed as secure anchors for interpretation.

As Schulz recounts it, she spent a considerable period of time in the classrooms of two exemplary—by reputation—high school English teachers, James and Raymond. Her overt purpose was to discover how teachers interpreted and acted on curriculum change and how they understood and justified their own teaching practices. More particularly, she was interested in their responses to a curriculum that mandated a change from teacher- to student-centered approaches in the high school literature program.

She offered both her respondents opportunities to comment on drafts of her writing about their conversations and her observations. James was more or less satisfied, it seemed, with the final narrative that Schulz offered. Raymond, however, was not; he experienced considerable “anguish” about the way he read his portrayal in her narrative. As a response, Schulz devotes a chapter to Raymond’s response, consisting of excerpts from his journal, as a way of balancing her own interpretations of his story.

Although *Interpreting Teacher Practice* does (re)present the stories of two teachers, Schulz’s study is less about teaching practice than the dilemmas posed to the researcher when a story fails to resonate positively with the person whose story is being recounted. She testifies to the difficulties of doing narrative and collaborative research, namely, that concerns about ethics and representation are intensified rather than ameliorated. Misunderstandings may especially arise when the narrative depends on a collaborative relationship formed on the basis of a distinct split in responsibilities: that of researcher-writer and respondent-reader. Having assumed “interpretive authority” she ruefully discovered that narratives may be received quite differently from what was originally intended, despite a professed concern for the integrity of the central characters of her narratives. Hence, in the second half of her book,

Schulz turns to the questions of collaboration and the application of reading response theory as important elements of narrative research practice.

Schulz's recasting of collaboration in terms of an ethic of care, and the deprivileging of the role of the author in the interpretation of research are provocative. First, building on the work of Noddings and the application of an "ethic of care" to collaboration, Schulz argues for a "fidelity" in research collaboration whereby a research relationship is built on the basis of something like friendship, a relationship that would allow both concurrence and disagreement to surface in the writing of narratives. Reflecting retrospectively on her experiences, Schulz argues that final reports ought to be coauthored to avoid the kind of situations she encountered with Raymond.

Second, in discussing interpretation of narrative, Schulz argues for the importance of readers' contributions to elucidating meaning from narrative texts. Building on recent literary theories that assign importance to the reading of texts and the many ways texts may be interpreted, she argues for a "dialogic model of reading." Schulz argues convincingly that collaborative narratives particularly lend themselves—necessarily so—to a more participatory approach, not just in writing, but also in reading and interpretation. As she emphasizes, "the texts of collaborative narrative inquiry encourage a participatory stance that seeks to connect with the existence behind the text" (p. 139). It is this last point, however—"the existence behind the text"—that signaled my primary disagreements with Schulz's text.

First of all, I was not convinced about the stories of teaching practice and the extent to which they provided a more deeply etched portrait of the way teachers construct meaning in practice. In her rush to invoke "interpretive authority," Schulz was too hastily compelled to theorize her teacher-respondents' practices as "traditional transmission teacher" and as "interpretive teacher." By doing so, however, she ignored how practice may speak more for itself, how practice is often tacitly theorized or, for that matter, how both practice and theory may be ideologically constructed. As well, the application of theoretical constructs to the descriptions of lived experience was not convincing, as both James' and Raymond's practices seem much more complex than implied by the labels Schulz uses.

Second, although Schulz stressed the importance of "the interplay of biography, beliefs, and teacher practice," the narratives in her book do not adequately reflect that interplay. Perhaps Schulz's original study, from which the book was derived, gave greater attention to elements of the interplay. In the book the stories are primarily about James and Raymond in the classroom, with some reference to their own biographies. However, this is not fully explored in ways that provide a deeper—and a social-historical sense—of subjectivity.

A more serious problem, though, is that Schulz does not take up the complexity of identity and thus, wittingly or not, seems to suggest a simple causal relationship between one's biographical experiences and practice. Saying that one's biography and beliefs affect one practice is not the same as showing how this in fact occurs, or how a person himself or herself creates a story of the self from diverse sources. As Britzman (1997) has written,

identity is not the sum of a singular and conscious act but is rather a social relation caught up—even as it catches it itself—in the detours of history, memory, and communication. (p. 31)

Schulz does focus in her discussion of narrative meaning on the importance, for example, of metaphor in the construction of narratives and in the formation of identity. However, she does not explore the metaphoric qualities of teacher theorizing or even, for that matter, the language of theoretical constructs and how language is implicated in how events in life become understood. By unproblematically emphasizing a relationship between biography and practice, Schulz inadvertently, I think, affirms the modern “master” narrative of the person making himself or herself (Taylor, 1989). Simpson’s (1995) caution is appropriate here: that there may be a tendency in narrative research “for the tellers of little tales to smuggle back ... precisely the most uncritical and traditional formations of self and subject” (p. 30).

Third, and again referring to “the existence behind the text,” I was not entirely comfortable with Schulz’s enthusiasm for “mutuality” in the collaborative relationship. I am not sure that the responsibilities of university researchers and classroom teachers can be reduced to a notion of mutuality. They are different but complementary, perhaps. Further, I was somewhat troubled by Schulz’s foreclosing too easily on the researcher’s responsibilities and perhaps overemphasizing the responsibilities of readers.

Here I refer back to Simpson’s notion of telling stories as half-knowledge. Although it is important to provide a means and scope for teacher voice, speaking for teachers rather than about them implies more than just letting the narratives of practice stand on their own. What is missing in Schulz’ narratives of practice is a deeper sense of how contextual elements such as culture, economy, ideology, gender, and social class play out in the way teaching is practiced and how practice becomes understood in language. Thus there may be another half-knowledge that can be placed up against the stories of particular lives and experiences.

Clandinin comments in her foreword that the most compelling aspect of Schulz’s study is its telling of “a story [of Schulz] as researcher growing into the complexity of what it means to engage in collaborative narrative inquiry” (1997, p. viii). I fully agree that this makes Schulz’s study a valuable contribution to the dialogue about engaging in narrative and collaborative research. To borrow the word from her title, it is a dialogue worth *continuing*.

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